

Wolverine (26)
(see under gold)

Woo Loo Moo Loo (164)

Loc: Sec. 5, (34-25E), Conconully dist. **Ore:** Silver, lead, copper. **Ref:** 58, p. 73. 63, p. 93.

Wyandotte (59)
(see under gold)

Wyoming (160)
(see under copper)

Yakima (172)
(see under copper)

Yellow Girl
(see under copper)

PEND OREILLE COUNTY

Ace High (19)

Loc: Sec. 33, (39-45E), Metaline dist. **Access:** 3 mi. over difficult terrain from road. **Prop:** 2 unpatented claims. **Owner:** Jack Doyle, Metaline Falls, Wash. (1941). **Ore:** Silver, gold, copper. **Gangue:** Quartz. **Deposit:** Fracture zone impregnated with mineralized quartz has been exposed to a width of about 80 ft. **Dev:** Numerous open cuts and surface stripping. **Assays:** Handpicked sample said to have assayed \$65 per ton. **Ref:** 29, p. 38.

D. Aldrich
(see Lead King under lead)

Alger and McCullough (43)
(see under copper)

American Zinc, Lead and Smelting Co.
(see under zinc)

Baker City (49)

Loc: Sec. 15, (32-45E), Newport dist. **Prop:** 1 unpatented claim. **Owner:** Abandoned (1941). **Ore:** Silver, lead, copper. **Deposit:** Said to be mineralized quartz veins. **Dev:** Workings caved. (1941). **Ref:** 29, p. 65.

Barefoot (40)

Loc: Secs. 2 and 11, (37-41E), Metaline dist. **Access:** 800 ft. from road. **Prop:** 4 unpatented claims. **Owner:** F. P. La Sota and associates, Metaline Falls, Wash. (1941). **Ore:** Silver, lead, zinc. **Deposit:** A 2-ft. quartz vein on a granite contact has reportedly been traced for 2,000 ft. **Dev:** A 20-ft. shaft and numerous open cuts. **Ref:** 29, p. 37.

Bead Lake (55)
(see under lead)

Bella May (32)
(see under zinc)

Berkin
(see Wolf Creek under lead)

Best Chance
(see Rainbow under copper)

Blazing Star
(see under gold)

Blue Bucket (34)
(see under zinc)

Blue Jim (West) (36)

Loc: Center W½ sec. 17, (38-43E), on E. bank of Pend Oreille R., Metaline dist. **Access:** Road. **Prop:** 1 unpatented claim. **Owner:** C. N. West and associates, Metaline Falls, Wash. (1945—). **Ore:** Silver, copper, gold, lead, zinc. **Ore min:**

Tennantite, malachite, siderite, chalcopryrite, galena, sphalerite, pyrite, chalcocite. **Deposit:** Zone in limestone is laced with mineralized quartz veinlets over a width of 7 to 20 ft. for an exposed length of 200 ft. **Dev:** 40-ft. adit, 400-ft. adit, 4 open cuts. **Ref:** 29, p. 43. 114, no. 5, 1909, p. 54. 158.

Bromide
(see La Sota)

Buck (62)

Loc: Sec. 28, (31-45E), Newport dist. **Access:** Near road. **Prop:** Several unpatented claims. **Owner:** Abandoned (1941). **Ore:** Silver. **Deposit:** Said to be mineralized quartz stringers. **Dev:** Caved shaft. **Ref:** 29, p. 73.

Bunker Hill
(see Lead Hill under zinc)

Campbell (57)
(see under copper)

Champagne-Hoosier
(see Hoosier under copper)

Clark
(see Josephine under zinc)

Cliff (1)
(see under zinc)

Comstock (54)
(see under lead)

Conquest
(see Kootenai Conquest under lead)

Copper Queen (3)
(see under copper)

Corzine (38)
(see under lead)

Cougar (20)
(see under copper)

Dan Fieldner
Loc: Newport dist. **Ore:** Silver, lead. **Assays:** \$66 Ag, Pb (1925). **Prod:** 1925. **Ref:** 98, 1925, p. 1813.

Deemer (17)
(see under gold)

Eagle
(see Ries under lead)

Elliot (23)
(see under lead)

Eureka (12)
(see under zinc)

Fairview Copper
(see Skippy and Queen Bess under lead)

Fissure
Loc: Metaline dist. **Owner:** T. T. Richardson, Northport Wash. **Ore:** Silver, copper, gold, cobalt. **Ref:** 158.

Flusey
(see Flusey-Hoopala under lead)

Flusey-Hoopala (6)
(see under lead)

Flying Squirrel
(see Giant-Flying Squirrel under zinc)

Galena Hill
(see Whoopie-Galena Hill under zinc)

General MacArthur (60)

(see under lead)

Giant-Flying Squirrel (2)

(see under zinc)

Glass

(see General MacArthur under lead)

Gold Arrow

(see Ries under lead)

Gold Coin-Hardtack (Snyder) (50)

Loc: NW¼SW¼ sec. 15, (32-45E), Newport dist. **Access:** Road. **Prop:** 2 unpatented claims, 160 acres deeded land. **Owner:** E. E. Snyder, Newport, Wash. (1941). Once part of Hoover Mining Co. holdings. **Ore:** Silver, lead, copper, gold. **Deposit:** Irregular quartz stringers said to carry small values. **Dev:** 80-ft. adit, caved (1948), open cuts. **Ref:** 29, pp. 66, 71, 139, pp. 54-55.

Golden Anchor

(see Ries under lead)

Grandview (Reuther) (16)

Loc: Sec. 25, (40-45E), Metaline dist. **Access:** 3 mi. by trail from good road. **Prop:** Several claims. **Owner:** Emil Reuther, Metaline Falls, Wash. (1941). **Ore:** Silver, copper, gold, nickel. **Deposit:** 2 quartz veins about 8 ft. apart. Veins av. 1 ft. wide and have been exposed for 600 ft. on the surface. **Dev:** Several open cuts. **Ref:** 29, p. 36.

Grandview mine (24)

(see under zinc)

Grandview Mines, Inc.

(see under zinc)

Gray Eagle

(see Hawkeye-Gray Eagle-Last Chance under copper)

Gypsy (18)

(see under copper)

Haliday (11)

(see under lead)

Hanley (4)

(see under zinc)

Hardrock Thomas (46)

(see under copper)

Hardtack

(see Gold Coin-Hardtack)

Hawkeye-Gray Eagle-Last Chance (58)

(see under copper)

Hoosier (28)

(see under copper)

Huffman

(see Mule Deer under lead)

Independence (Star) (52)

Loc: SW¼ sec. 23 and NW¼ sec. 26, (32-45E), Newport dist. **Prop:** 1 unpatented claim. **Owner:** V. P. Campbell (1951). **Ore:** Silver, lead, copper, gold. **Gangue:** Quartz. **Deposit:** Quartz vein 2 ft. wide in diorite. **Dev:** Shaft with drifts totaling about 300 ft., full of water (1950). **Ref:** 29, p. 66. 139, p. 55.

Isabelle (45)

(see under gold)

Jim Creek (37)

(see under lead)

Josephine (26)

(see under zinc)

Katydid

(see Ries under lead)

Key Fraction (51)

(see under lead)

King Tut (15)

(see under lead)

Kootenai Conquest (56)

(see under lead)

Kroll

(see Blue Bucket under zinc)

Lakeview (5)

(see under zinc)

La Sota (Silver Crest, Bromide) (41)

Loc: SE¼ sec. 3 and NE¼ sec. 10, (37-41E), on saddle and flanks of Aladdin Mtn. **Elev:** 4,000 to 4,500 ft. **Access:** 1 mi. by road and 1½ mi. by trail from the Meadow Cr. road. 22 mi. from railroad at Colville. **Prop:** 16 unpatented claims. **Owner:** F. P. La Sota and C. Clarke, Metaline Falls, Wash. (1941—). **Ore:** Silver, lead, zinc, copper, reportedly cobalt, gold. **Ore min:** Galena, sphalerite, tetrahedrite, azurite, malachite, horn silver (?), chalcopryrite, bornite, embolite (?). **Gangue:** Quartz, tourmaline. **Deposit:** Narrow mineralized quartz stringers and mineralized limy bands in argillite. One quartz vein is 2 to 6 ft. wide and traceable for 450 ft. **Dev:** 20-ft. winze, 95-ft. drift, 50-ft. winze, 100-ft. crosscut with drifts, 20-ft. drift, numerous open cuts, diamond drill holes. **Assays:** One assay across 3 ft. of vein showed 11.50 oz. Ag, tr. Au. A 4-ft. sample at another place showed 0.04 oz. Au, 0.14 oz. Ag. 15.13% Co reported. **Ref:** 29, pp. 59-60. 133, p. 31. 158.

Last Chance

(see Hawkeye-Gray Eagle-Last Chance under copper)

Lead Hill (14)

(see under zinc)

Lead King (7)

(see under lead)

Little Noisy (39)

(see under zinc)

Lloyd (63)

(see under lead)

McCann (47)

(see under copper)

McCullough

(see Alger and McCullough under copper)

Mammoth

(see Morning and Mammoth under lead)

Metaline Contact (29)

(see under zinc)

Metaline Metals (8)

(see under zinc)

Meteor (53)

(see also Alger and McCullough under copper)

Loc: E½NW¼ sec. 22, (32-45E), Newport dist. **Access:** Road. **Prop:** 1 patented claim, part of Alger and McCullough group. **Owner:** Ed Alger, Newport, Wash. **Ore:** Silver, lead, copper. **Ore min:** Galena, chalcopryrite. **Gangue:** Quartz. **Deposit:** 16-in. well-defined quartz vein. **Dev:** 2 short drifts. **Ref:** 73, p. 46. 129, p. 80. 158.

Midas

(see Ries under lead)

Morning and Mammoth (25)

(see under lead)

Mount Pisgah (64)

(see under lead)

Mule Deer (42)

(see under lead)

Nelroe (9)

(see under lead)

Nevell (66)

(see under gold)

O. K. (31)

Loc: NW¼ sec. 31, (39-43E) and E½ sec. 36, (39-42E), Metaline dist. **Elev:** 3,275 to 3,475 ft. **Access:** 4 mi. from old Metaline up Sweet Cr. road. **Prop:** 8 claims: Silver Queen North and South Extensions, O. K. and North Extension, Columbia and North Extension, Ione. **Owner:** Pend Oreille Premier Mining Co. (1930-1942). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Tetrahedrite, galena, sphalerite, pyrite, chalcopryrite, pyrrhotite. **Gangue:** Calcite, quartz, tremolite, diopside, tourmaline, garnet. **Deposit:** Contact replacement deposit of limestone. **Dev:** 1,000 ft. of drifts mostly in 2 adits, one has 300 ft. and the other 430 ft. of drifts. **Assays:** Gallium and germanium are present in spectrographically determinable quantities. **Prod:** May have produced. **Ref:** 29, p. 40. 46, p. 36. 73, pp. 70-72. 106, 5/19/30. 128, p. 76. 158.

Oriole (30)

(see under zinc)

Pat (21)

(see under lead)

Pend Oreille Mines & Metals Co.

(see under zinc)

Pindle (67)

(see under copper)

Poorman

Loc: Metaline dist. **Ore:** Silver. **Prod:** 1937. **Ref:** 58, p. 55. 97, 1938, p. 459.

Prouty (22)

Loc: Secs. 29 and 32, (39-44E), Metaline dist. **Access:** Road. **Prop:** 5 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Silver, lead, gold. **Deposit:** Narrow stringers of sparsely mineralized quartz occur in a fracture zone. **Dev:** 250 ft. of adits with caved portals, and some open cuts. **Assays:** Reportedly rich silver samples were found here. **Ref:** 29, p. 52.

Queen Bess

(see Skippy and Queen Bess under lead)

Rainbow (48)

(see under copper)

Reuther

(see Grandview)

Ries (61)

(see under lead)

Riverview (10)

(see under zinc)

Rocky Creek (41A)

Loc: SE. cor. sec. 23, (37-41E). **Access:** About 12 mi. by road from railroad at Tiger. **Prop:** 3 claims. **Owner:** Kaniksu Metals, Tacoma, Wash. (1954—). George and Henry Rushmier and

Mrs. Bellows, Colville, Wash. (1953). **Ore:** Silver, lead, zinc, gold. **Ore min:** Galena, chalcopryrite, sphalerite, free gold. **Deposit:** Fine-grained sulfides in a quartz vein 2 to 16 in. wide exposed for 50 ft. in a schist roof pendant in granite. **Dev:** 10-ft. shaft, 70-ft. drift. **Assays:** Av. 360 oz. Ag. One assay showed 0.44 oz. Au. Some ore carried free gold to the extent of several thousand dollars per ton. **Ref:** 69-A, p. 15. 158.

Silver Crest

(see La Sota)

Skippy and Queen Bess (44)

(see under lead)

Slate Creek

(see Whoopie-Galena Hill under zinc)

Snowbird and Stanley (59)

(see under lead)

Snyder

(see Gold Coin-Hardtack)

Stanley

(see Snowbird and Stanley under lead)

Star (Campbell)

(see Campbell under copper)

Star (Independence)

(see Independence)

Sterling (33)

(see under zinc)

Sunrise (65)

(see under gold)

Velvet Lode

(see King Tut under lead)

Washington (27)

(see under lead)

West

(see Blue Jim)

Whoopie-Galena Hill (13)

(see under zinc)

Wolf Creek (35)

(see under lead)

PIERCE COUNTY**Bear Gap**

(see Fife under gold under Yakima County)

Blazing Star

(see under gold)

Blue Bell

(see Fife under gold under Yakima County)

Blue Grouse and Sure Thing (2)

(see under gold)

Blue Star

(see under copper)

Boston

(see under gold)

Current (3)

(see under gold)

Fife (4)

(see under gold under Yakima County)

Frater (5)

(see under gold)

King
(see under gold)

Lone Star
(see under copper)

Lorraine
(see under copper)

Manitau
(see Fife under gold under Yakima County)

Nell
Loc: Summit dist. **Ore:** Silver. **Ref:** 63, p. 45.

New Deal
(see Washington Cascade under gold)

Pick Handle
(see Fife under gold under Yakima County)

Silver Creek (6)
(see under gold)

Silver Creek Gold & Lead (1)
(see under gold)

Sure Thing
(see Blue Grouse and Sure Thing under gold)

Tacoma
(see under copper)

Washington Cascade (7)
(see under gold)

SKAGIT COUNTY

Alta (11)
(see under lead)

Anacopper (1)
(see under copper)

Bornite
(see North Coast under gold)

Boston (12)
(see under lead)

British
(see Skagit Queen)

Bunker Hill and Sullivan
Loc: Cascade dist. **Ore:** Silver. **Ref:** 63, p. 55.

Cascade (23)
(see under lead)

Cascade Minerals
(see under lead)

Chicago (13)
(see under lead)

Denver
Loc: S. of Boston property, Cascade dist. **Ore:** Silver, gold.
Ref: 63, p. 55.

Dorothy
(see Thunder Creek under lead)

Eldorado (15)
Loc: Sec. 15, (35-13E), Cascade dist. **Ore:** Silver, gold, lead, zinc. **Ore min:** Galena, sphalerite. **Ref:** 13, p. 176. 58, p. 20. 63, p. 55. 158.

Epoch (24)
(see under lead)

Everett
(see Willis and Everett)

Everett Extension
Loc: T. 35 N., R. 13 E., Cascade dist. **Owner:** North Coast Mining & Milling Co. (1908-1934). **Ore:** Silver, lead, zinc, gold. **Ref:** 33, 1908, p. 1053. 116, no. 5, 1909, p. 95. 158.

Fidalgo
(see Stephens under copper)

Fidalgo Island (2)
(see under copper)

Fourth of July (26)
Loc: SW $\frac{1}{4}$ sec. 11, (34-13E), Cascade dist. **Ore:** Silver, gold. **Ref:** 63, p. 56.

Friend (16)
Loc: Sec. 26, (35-13E), Cascade dist. **Owner:** Adolph Behrens and sons estate (1934). **Ore:** Silver, lead, zinc, gold. **Ref:** 158.

Grand Republic (27)
(see under lead)

Granite (22)
Loc: SW $\frac{1}{4}$ sec. 34, (35-13E), Cascade dist. **Ore:** Silver, lead. **Ref:** 63, p. 56.

Great Northern
(see under gold)

Hartford (6)
(see under lead)

Iowa-Olympia
Loc: T. 34 N., R. 13 E., 2 mi. SW. of Cascade Pass on W. slope of Magic Mtn. **Ore:** Silver, lead, zinc. **Deposit:** Veins in granite. **Ref:** 158.

Johnsburg (21)
(see under lead)

Kildare (17)
(see under lead)

Lakeside
(see under lead)

Logan No. 2 (10)
Loc: W $\frac{1}{2}$ sec. 23, (35-14E), $\frac{1}{4}$ mi. NW. of Park Cr. Pass. **Elev:** Slightly lower than Park Cr. Pass. **Ore:** Silver, lead, zinc, copper, gold. **Dev:** Adit several hundred feet long. **Ref:** 158.

Marine
(see under gold)

Michigan (25)
Loc: NE $\frac{1}{4}$ sec. 3, (34-13E), Cascade dist. **Ore:** Silver, lead. **Ref:** 13, p. 143. 63, p. 56.

Midas (18)
Loc: W $\frac{1}{2}$ sec. 25 and E $\frac{1}{2}$ sec. 26, (35-13E), on S. side of N. Fk. of Cascade R., E. of Johnsburg. **Elev:** 4,200 ft. **Prop:** 5 patented claims: Midas, Diamond, Saratoga, Pride of Seattle, Pride of Kildare. **Owner:** A. G. Mosier and William Soren, Sedro Woolley, Wash. (1951). **Ore:** Silver, lead, zinc, gold, copper. **Ore min:** Chalcopyrite, pyrite, sphalerite, galena. **Deposit:** 2 intersecting shear zones contain narrow sulfide-bearing quartz veins. Mineralized portions vary from 7 to 24 in. in width. **Dev:** Several crosscuts and drifts. **Assays:** Reportedly \$50 to \$600 in all values. Fair values in silver and moderate to low values in lead, zinc, gold, and copper. **Ref:** 63, p. 55. 158.

North Coast (3)
(see under gold)

Olympia

(see Iowa-Olympia)

Ontario (7)

(see under lead)

Pioneer (28)

Loc: Secs. 1, 2, and 11, (34-13E). **Access:** 6 mi. by trail from Mineral Park up the Middle Fk. of Cascade R. **Prop:** 9 patented claims: Pioneer, Iowa, Olympic, Little Bill, Torpedo, Whistler, P. D., Snowbird, Pole Axe. **Owner:** William Soren, Mount Vernon, Wash. (1943). **Ore:** Silver, zinc, lead. **Deposit:** Quartz vein. **Dev:** Considerable. **Ref:** 158.

Sierra Grande (8)

(see under lead)

Silver Tip (9)

(see under lead)

Skagit Queen (British) (4)

Loc: Secs. 5, 6, 7, 8, 17, and 18, (35-14E), Thunder Cr. dist. **Access:** 1 mi. by trail up Skagit Queen Cr. **Prop:** 32 claims and 4 millsites patented and 3 unpatented claims. **Owner:** British Mining Co. (1952—). Puget Sound, Chelan, and Spokane Railway Co. (1912). **Ore:** Silver, lead, copper, gold, molybdenum. **Deposit:** Gneiss cut by basic dikes reportedly contains 4 veins from 4 to 6 ft. wide. **Dev:** 670-ft. crosscut adit that failed to reach ore. **Assays:** Said to be \$15 to \$18 per ton in all values. **Ref:** 105, 1908, p. 686. 119, no. 2, 1912, p. 1. 158.

Soldier Boy (19)

(see under gold)

Standard

Loc: Thunder Cr. dist. **Owner:** Standard R. and D. Co. (1908). **Ore:** Silver, lead, copper. **Ref:** 116, no. 5, 1908, p. 130.

Stenmo

(see under lead)

Sullivan

(see Bunker Hill and Sullivan)

Thunder Creek (9A)

(see under lead)

Ventura (20)

Loc: SW¼ sec. 36, (35-13E), Cascade dist. **Ore:** Silver, lead, gold. **Ref:** 63, p. 55.

West Seattle (14)

(see under lead)

Willis and Everett (5)

Loc: Sec. 12, (35-13E), in Silver Basin on S. Fk. of Thunder Cr. **Prop:** 9 claims. **Owner:** British Mining Co. (1952—). Skagit Mining & Milling Co. (1897). Baker Mount Mining Co. (1902). Puget Sound, Chelan, and Spokane Railway Co. (1918). Thunder Creek Transportation & Smelting Co. (1918). Thunder Creek Mining Co. (1909-1926). **Ore:** Silver, lead, gold. **Deposit:** 3 veins. One is 8 to 12 ft. wide and another is 4 to 10 ft. wide. The 4- to 10-ft. vein has a granite footwall and porphyry hanging wall. **Assays:** High-grade ore runs as much as \$200 Ag, \$9 Au. **Prod:** Has produced. **Ref:** 63, p. 59. 88, p. 51.

SKAMANIA COUNTY**Athens**

(see under copper)

Bronze Monarch (12)

(see under copper)

Brown and Livingston (15)

(see under gold)

Chicago (8)

(see under copper)

Coe

(see Sweden under copper)

Copper Canyon Mines

(see Yellow Jacket and Hoo Hoo under copper)

Cross Lode

Loc: Mt. St. Helens dist. **Owner:** Frank Thorne and James Pyron (1897). **Ore:** Silver. **Assays:** \$55 Ag (1897). **Ref:** 63, p. 50.

Earl

(see Samson under copper)

Gold Creek

(see Zinc Creek under zinc)

Grizzly Creek (5)

(see under gold)

Hoo Hoo

(see Yellow Jacket and Hoo Hoo under copper)

Independence (2)

(see under copper)

Index (6)

(see under copper)

Kentucky Belle**Loc:** Mt. St. Helens dist. **Ore:** Silver. **Ref:** 63, p. 50.**Last Chance (19)**

(see under copper)

Livingston

(see Brown and Livingston under gold)

Martha Washington

(see Bronze Monarch under copper)

Minnie Alice (1)

(see under copper)

Minnie Lee (4)

(see under copper)

Mount Fairy (9)

(see under gold)

Mountain King

(see under copper)

Norway (10)

(see under copper)

Plamondon (17)

(see under gold)

Polar Star (7)

(see under copper)

Primary Gold (16)

(see under gold)

Rainbow (20)

(see under vanadium)

St. Helens

(see Sweden under copper)

Samson (3)

(see under copper)

Sweden (13)

(see under copper)

Yellow Jacket and Hoo Hoo (21)

(see under copper)

Yellow Metals (11)

(see under copper)

Young America (14)

(see under copper)

Zinc Creek (18)

(see under zinc)

SNOHOMISH COUNTY**Ajax (102)**

(see under gold)

Ala-Dickson (80)

(see under copper)

Alleghany

(see Foggy under copper)

Alta (152)

(see under gold)

Anaconda

(see under copper)

Annie

(see under gold)

Arlington (32)

(see under copper)

Bald Mountain (33)

(see under copper)

Baltimore (70)

(see under gold)

Bangor Creek (44)

(see under copper)

Bear (153)

(see under gold)

Beatrice

(see Sunset and Beatrice under lead)

Beckler River

(see under copper)

Bell and Crown (77)

(see under copper)

Ben Lomond

(see Rainy under gold)

Bergensen

(see Taylor & Nunn under gold)

Big Bear and Butte (30)

(see under gold)

Big Copper (82)

(see under copper)

Big Four (67)

(see under lead)

Big Raymond (127)

(see under gold)

Billy Lee (154)

(see under lead)

Blackman

(see Doris under copper)

Blackstone (155)

(see under copper)

Blomquist (40)

(see under copper)

Blue Bird (2)

(see under gold)

Blue Bird (179)

(see under gold)

Blue Rock (71)

(see under copper)

Bluebell (156)

(see under gold)

Bon Ton (96)

(see under copper)

Bonanza

(see Mineral Center under gold)

Bonanza Queen (45)

(see under copper)

Bornite

(see Bangor Creek under copper)

Broken Ridge (180)

(see under copper)

Brown

(see Doris under copper)

Buckeye (209)

(see under copper)

Buckeye (9)

Loc: SE¼ sec. 29, (32-9E), on White Horse Mtn., Darrington dist. **Prop:** 2 claims. **Ore:** Silver. **Dev:** 9-ft. adit. **Ref:** 14, p. 8. 63, p. 51.

Bullet (42)

(see under copper)

Bullion King

(see under gold)

Bunker Hill

(see Copper Belle under copper)

Burns (4)

(see under gold)

Butte and Big Bear

(see Big Bear and Butte under gold)

Calumet

(see Glacier Peak under copper)

Calumet (143)

(see under gold)

Caplin-Holbrooke (105)

(see under gold)

Cascade (197)

(see under copper)

Cassidy (103)

(see under gold)

Castle (128)

(see under gold)

Champion (157)

(see under gold)

Charlotte (202)

(see under copper)

Clara Thompson

(see Jasperson under gold)

Cleveland (46)
(see under copper)

Cleveland
(see under lead)

Colts (29)
(see under copper)

Commonwealth
(see Jasperson under gold)

Commonwealth
(see under gold)

Consolidated
(see under gold)

Cooperative (194)
(see under copper)

Copper Belle (204)
(see under copper)

Copper Chief (158)
(see under copper)

Copper Cliff
(see under gold)

Copper Independent (47)
(see under gold)

Copper Prince (48)
(see under gold)

Copperhead (49)
(see under copper)

Cornucopia (68)
(see under gold)

Corona (122)
Loc: Sec. 10, (28-11E), Silver Cr. dist. **Prop:** 2 claims. **Ore:** Silver, gold. **Deposit:** 6-ft. vein with 3 ft. of ore. **Dev:** 65-ft. adit. **Assays:** Surface ore runs \$22 Au, \$60 Ag. **Ref:** 14, p. 30. 63, p. 32.

Courtney (17)
(see under copper)

Crown
(see Bell and Crown under copper)

Crown Point (159)
(see under lead)

Dahl
(see Eclipse under gold)

Daisy (123)
(see under gold)

Damm
(see under copper)

Darrington
(see Gold Mountain under copper)

Deerfly (26)
(see under lead)

Del Campo
(see under gold)

Delta
(see under copper)

Deway (181)
(see under gold)

Diamond Hitch (129)
(see under copper)

Dominion
(see under lead)

Doris (144)
(see under copper)

Dry Creek
(see under gold)

Eclipse (50)
(see under gold)

Edison (130)
(see under gold)

Editor (182)
Loc: Sec. 18, (28-11E), at the head of Pole Gulch, Silver Cr. dist. **Ore:** Silver, lead. **Ore min:** Galena. **Deposit:** 2-ft. vein. **Dev:** Several open cuts. **Assays:** \$35 Ag. **Ref:** 14, p. 31. 63, p. 32.

El Dorado (97)
(see under copper)

Elmo
(see Gold Bar and Elmo under lead)

Emma Moore (106)
(see under lead)

Emma No. 2
(see under lead)

Ethel (203)
(see under copper)

Ethel Consolidated
(see Ethel under copper)

Etruria
(see under lead)

Eureka (65)
(see under copper)

Everett (51)
(see under copper)

Evergreen (183)
(see under copper)

Fanny (52)
(see under gold)

Feldt (10)
Loc: SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, (32-9E), on N. slope of White Horse Mtn., Darrington dist. **Elev:** 1,300 ft. **Access:** $\frac{3}{4}$ mi. by trail up Ashton Cr. from home of John Feldt. **Prop:** 7 unpatented claims. **Owner:** John Feldt, Darrington, Wash., and Axel Sjorgren, Seattle, Wash. (1949). **Ore:** Silver, antimony, lead, zinc, gold. **Ore min:** Stibnite, berthierite, pyrite, arsenopyrite, chalcopyrite, sphalerite, galena, tetrahedrite, cobaltite. **Gangue:** Calcite, quartz. **Deposit:** Mineralized breccia along a fault zone in altered volcanic rocks. The mineralized zone has a max. width of 7 in. **Dev:** 2 open cuts. **Assays:** A 7-in. channel sample across the mineralized zone gave 8.20 oz. Ag, 0.07 oz. Au, 0.09% Cu, 2.79% Pb, 2.20% Zn, 0.18% Sb. **Ref:** 132, pp. 127-129.

Florence-Rae (198)
(see under copper)

Florence Rae (Rudebeck-Florence Rae) (147)
(see under copper)

Foggy (98)
(see under copper)

Forest Hope (5)
(see under copper)

Fortunate

(see under gold)

Fortunate (131)

(see under gold)

"45" (Magus) (78)

Loc: Secs. 29 and 30, (30-10E). **Elev:** 2,500 to 4,500 ft. **Access:** 6 mi. from Sultan Basin road by road up Williamson Cr. **Prop:** 25 patented claims and fractions. **Owner:** The 45 Mines Inc. (1931—). Forty-Five Consolidated Mining Co. (1902-1907). **Ore:** Silver, lead, gold, zinc, copper. **Ore min:** Galena, sphalerite, ruby silver, chalcopryrite, arsenopyrite, pyrite, pyrrhotite, marcasite, scheelite, tetrahedrite. **Gangue:** Quartz, calcite. **Deposit:** Mineralized fracture zones in metamorphic rocks. One vein, the Magus, has an indicated length of 3,000 ft. **Dev:** More than 4,000 ft. of underground workings. **Improv:** 3 cabins, the remains of several other buildings and 2 tram lines. **Assays:** Ore shipped returned 0.35 to 1.06 oz. Au, 48.4 to 171.4 oz. Ag. Other assays show 3.7% to 4.3% Zn, 4.6% to 6.5% Pb, 6.2% to 18.5% As, 0.28 to 0.6 oz. Au, 8.0 to 10.4 oz. Ag. **Prod:** Approx. 3,185 tons of ore 1896 to 1902. **Ref:** 14, p. 47. 23, pp. 39-46. 33, 1907, p. 605. 43, no. 5, 1898, pp. 39-40. 46, pp. 166-167. 63, p. 24. 88, pp. 66-67. 104, 9/15/35, p. 23. 105, no. 2, 1905, p. 35. 106, 5/21/31; 9/3/31, p. 13. 112 p. 179. 114, no. 5, 1909. 129, pp. 296-297. 158. 159, p. 136.

Four Brothers (160)

(see under lead)

Garfield

(see under lead)

Gettysburg (161)

(see under lead)

Gift

(see under gold)

Glacier Peak (25)

(see under copper)

Glengarry

Loc: NW. of Silverton near the Three Sisters prospect. **Prop:** 9 claims. **Ore:** Silver, gold, copper. **Ore min:** Tetrahedrite. **Deposit:** 45 in. of ore. **Assays:** \$140.70 Ag, \$4.20 Au. **Ref:** 14, p. 43. 63, p. 20.

Glory of the Mountain (72)

(see under gold)

Golconda

(see under lead)

Gold Bar (132)

(see under copper)

Gold Bar and Elmo

(see under lead)

Gold Mountain (8)

(see under copper)

Gold Standard (162)

(see under gold)

Golden Chord (34)

(see under gold)

Golden Cord

(see Justice under gold)

Golden Eagle (151)

(see under molybdenum)

Good Hope (107)

(see under gold)

Granite and Maud (53)

(see under gold)

Gray Eagle (184)

(see under copper)

Gray Mare (Old Gray Mare) (11)

(probably same property as Whitehorse under zinc)

Loc: Sec. 30 (?), or SE¼ sec. 29, (32-9E). **Elev:** 1,700 to 1,900 ft. **Access:** 9 mi. by road from Darrington. **Prop:** 3 claims: Snow Gulch, Gray Mare Nos. 1 and 2. **Owner:** W. J. Lee, Seattle, and Mrs. Charles Lawson and Earl Beman, Arlington, Wash. (1943). **Ore:** Silver, lead, zinc, antimony, gold. **Ore min:** Galena, silver sulfides, sphalerite. **Deposit:** Mineralized breccia zones in cherty limestone and calcareous shale. May be considerable low-grade ore. **Dev:** 50-ft. adit, another short adit, some surface workings. **Assays:** Assays, probably on handpicked samples, show 15.8 to 245 oz. Ag, 20% to 70% Pb, 1% to 3% Zn, 0.3% to 9.8% Sb, 0.01 oz. Au, 0.34% As. **Ref:** 58, p. 50. 157. 158.

Great Northern (87)

(see under gold)

Great Scott (124)

(see under gold)

Green Crown (12)

(see under copper)

Grizzly

(see under copper)

Gunn Peak (207)

(see under copper)

Gypsy Queen (163)

(see under lead)

Hammond

(see Keystone under copper)

Hancock (133)

(see under copper)

Hannah (13)

(see under copper)

Hard Pass (148)

(see under copper)

Hecla (35)

(see under copper)

Helena (28)

(see under copper)

Helena and Sadie (149)

(see under copper)

Hiawatha (108)

(see under gold)

Hicks

(see Sultan King under copper)

Hidden Treasure**Loc:** Silver Cr. dist. **Ore:** Silver, lead. **Ref:** 13, p. 160.**Highland (24)**

(see under copper)

J. J. Hill

(see under gold)

Holbrooke

(see Caplin-Holbrooke under gold)

Homestead

(see Cascade under copper)

Hoodoo (54)
(see under copper)

Howard
(see Cooperative under copper)

Hunter (18)
(see under copper)

Idaho (164)
(see under lead)

Imperial (55)
(see under copper)

Independent
(see Copper Independent under gold)

Index
(see Lake Serene under copper)

Index Bornite (205)
(see under copper)

Index Gold Mines, Inc. (185)
(see under gold)

Index-Independent
(see Lake Serene under copper)

Iowa (Mint) (145)
(see under copper)

Iowa (Washington-Iowa)
(see Washington-Iowa under copper)

Isabell
(see Red Cross under copper)

J. B. (109)
(see under gold)

Jackson
(see St. Louis and Jackson under copper)

Jasper
(see under lead)

Jasperson (165)
(see under gold)

Jesse (19)
(see under gold)

Jim Dandy (166)
(see under gold)

Jones (178)
Loc: Center N½ sec. 11, (28-10E), on Elk Cr. about 5 mi. above confluence with N. Fk. Sultan R. **Elev:** 3,000 ft. **Owner:** Abandoned (1943). **Ore:** Reportedly silver-lead. **Dev:** Reportedly a shaft now obliterated by snowslides. **Improv:** Parts of a water wheel, cabin, and hoisting equipment. **Ref:** 23, p. 74.

Jones
(see Kromona under copper)

Jumbo (134)
(see under gold)

Junie
(see under copper)

Justice (110)
(see under gold)

Justin (6)
(see under gold)

Kena and Troly
(see Skrinde under copper)

Keystone (86)
(see under copper)

Keystone (91)
(see under gold)

Keywinder (20)
(see under copper)

Kromona (200)
(see under copper)

Lake Serene (206)
(see under copper)

Lakeview Extension (27)
(see under gold)

Lalla Rookh
(see Tobique and Lalla Rookh under gold)

Lambert
(see under copper)

Larson (1)
(see under lead)

Last Chance (186)
(see under gold)

Last Hope
(see under gold)

Le Roy (89)
Loc: N½ sec. 19, (29-11E), Silver Cr. dist. **Access:** 10 mi. E. of Index on Mineral City road. **Owner:** Index Gold Mines, Inc. **Ore:** Silver, lead, platinum, gold. **Ref:** 158.

Lida (135)
(see under copper)

Lily James (56)
(see under gold)

Little Chief (81)
(see under copper)

Little Giant (69)
(see under gold)

Lockwood (167)
(see under lead)

Lockwood Pyrite (88)
(see under iron)

Lost Creek (195)
(see under copper)

Louise
(see Mineral Center under gold)

Lulu (57)
(see under gold)

M and H No. 2 (168)
(see under gold)

McCombs
(see Jasperson under gold)

Mackinaw (90)
(see under copper)

Magus
(see "45")

Marguerite Mosher
(see under copper)

Martin Engdahl (169)
(see under lead)

- Maud**
(see Granite and Maud under gold)
- Michigan (187)**
(see under gold)
- Miiki Maru (150)**
(see under gold)
- Milwaukee (79)**
(see under zinc)
- Mineral Center (136)**
(see under gold)
- Mineral Mines (170)**
(see under copper)
- Minnehaha (111)**
(see under gold)
- Mint**
(see Iowa under copper)
- Molly**
(see under gold)
- Monitor and Sterling (43)**
(see under copper)
- Monte Cristo (104)**
(see under gold)
- Morning Star (125)**
(see under lead)
- Mosher**
(see Marguerite Mosher under copper)
- Mountain Cedar (84)**
(see under copper)
- Mountain Goat**
(see under lead)
- Murdock**
(see under lead)
- Myrtle C. (7)**
(see under copper)
- Mystery (Monte Cristo, Pride)**
(see Monte Cristo under gold)
- Mystery (Mountain Cedar, Paystreak)**
(see Mountain Cedar under copper)
- National (137)**
(see under copper)
- Nemo (58)**
(see under gold)
- Nesta (21)**
(see under copper)
- Nevada (73)**
(see under copper)
- New Seattle (36)**
Loc: NW¼ sec. 2, (30-9E), near the head of Martin Cr., Silverton dist. **Ore:** Silver, gold, copper, antimony. **Ore min:** Tetrahedrite. **Deposit:** 5-ft. vein. **Dev:** Adit. **Assays:** 350 oz. Ag, \$5.69 Au. **Ref:** 14, p. 45. 63, p. 22.
- New York (59)**
(see under copper)
- New York-Seattle (126)**
(see under copper)
- Nickel Bird (60)**
(see under copper)
- Non Pareil (196)**
(see under copper)
- North Star**
(see Sunrise under gold)
- Northwest Consolidated**
(see under gold)
- Nunn**
(see Taylor & Nunn under gold)
- O and B (92)**
(see under copper)
- Occidental (83)**
(see under gold)
- Old Gray Mare**
(see Gray Mare)
- Oldfield**
(see Sunrise under gold)
- Ontario (171)**
(see under lead)
- Ore Recoveries (61)**
(see under copper)
- Oro Fino (188)**
(see under copper)
- Orphan Boy (112)**
(see under gold)
- P. I. (189)**
(see under copper)
- P. and I. (93)**
(see under gold)
- Paystreak**
(see Mountain Cedar under copper)
- Peabody (113)**
(see under gold)
- Penn**
(see Foggy under copper)
- Perm**
(see under gold)
- Philo (99)**
(see under copper)
- Pride**
(see Monte Cristo under gold)
- Pride of Index**
(see Lake Serene under copper)
- Pullman**
(see under lead)
- Q. T. (114)**
(see under gold)
- Queen Anne (22)**
(see under gold)
- Rainy (94)**
(see under gold)
- Red Cloud (172)**
(see under gold)
- Red Cross (201)**
(see under copper)
- Republican (100)**
(see under lead)

- Ruby King (173)**
(see under gold)
- Rudebeck-Florence Rae**
(see Florence Rae under copper)
- Sadie**
(see Helena and Sadie under copper)
- St. Louis (174)**
(see under copper)
- St. Louis and Jackson (37)**
(see under copper)
- Sam Strom (3)**
(see under copper)
- Scriber**
(see Kromona under copper)
- Seattle**
(see under gold)
- Seattle**
(see New York-Seattle under copper)
- Seventy Six (115)**
(see under lead)
- Shirley (190)**
(see under gold)
- Sidney (116)**
(see under gold)
- Silver Coin (38)**
(see under gold)
- Silver Creek**
(see Broken Ridge under copper)
- Silver Horseshoe (66)**
Loc: SW¼ sec. 33, (30-10E). **Elev:** 4,500 to 4,800 ft. **Access:** A steep trail 1 mi. long from Williamson Cr. to Copper Lk. crosses the property. **Prop:** 10 claims: Silver Horseshoe Nos. 1 to 10. **Owner:** Forrest E. Wing and associates, Tacoma, Wash. (1943). **Ore:** Silver, lead, gold, zinc, copper. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite, arsenopyrite, pyrrhotite, scheelite, molybdenite. **Gangue:** Quartz, calcite, gouge. **Deposit:** Mineralized shear zone 2 ft. wide in quartz diorite and mineralized tension fractures extending out from shear zone 5 to 6 ft., some as much as 30 ft. **Dev:** Open cuts. **Assays:** Mineralized zone est. to assay 1% to 2% Cu, 4% to 5% Zn, 3% to 4% Pb. Assays show 3.6% to 11.3% Pb, 0.04 to 0.42 oz. Au, and 4.8 to 160.8 oz. Ag. **Ref:** 23, pp. 47-49.
- Silver Lake (117)**
(see under gold)
- Silver Queen (118)**
(see under gold)
- Silver Slipper (175)**
(see under gold)
- Skrinde (191)**
(see under copper)
- Sloman**
(see under gold)
- Standard**
(see under lead)
- Sterling**
(see Monitor and Sterling under copper)
- Sultan King (146)**
(see under copper)
- Sultan Queen**
(see Sultan King under copper)
- Sunday Star**
(see under gold)
- Sunrise (85)**
(see under copper)
- Sunrise (14)**
(see under gold)
- Sunset (199)**
(see under copper)
- Sunset (74)**
(see under gold)
- Sunset and Beatrice (192)**
(see under lead)
- Taylor & Nunn (15)**
(see under gold)
- Texas (193)**
(see under gold)
- Threadwell**
(see under gold)
- Three Sisters (62)**
(see under gold)
- Three Star (75)**
(see under gold)
- Tobique and Lalla Rookh (95)**
(see under gold)
- Trade Dollar**
(see under lead)
- Troly**
(see Skrinde under copper)
- Troublesome Pass**
Loc: At Troublesome Pass ½ mi. E. of Hubbard Peak, Monte Cristo dist. **Ore:** Silver, gold. **Deposit:** Altered and pyritized andesite. **Assays:** Tr. Au, 0.44 oz. Ag. **Ref:** 149, p. 830.
- Tum Tum**
(see Taylor & Nunn under gold)
- Twentieth Century (119)**
Loc: Sec. 27, (29-11E), Monte Cristo dist. **Ore:** Silver, gold. **Ref:** 14, p. 26. 114, no. 5, 1909, p. 104.
- Uncle Sam (208)**
(see under copper)
- Undaunted (138)**
(see under gold)
- Union (76)**
(see under gold)
- Vandalia (176)**
(see under lead)
- Victory**
(see under gold)
- Virginia (63)**
(see under copper)
- Washington-Iowa (139)**
(see under copper)
- Wayside (39)**
(see under copper)
- Webster**
(see Jasperson under gold)

Weden Creek

(see Mackinaw under copper)

Westland (177)

(see under copper)

Whaleback (140)

(see under gold)

Whistler (101)

(see under lead)

White Gander (23)

(see under copper)

White Swan (31)

Loc: Sec. 3, (30-9E), at headwaters of Martin Cr., Silverton dist. **Ore:** Silver. **Deposit:** Vein parallel to the Doubtful vein. **Dev:** 50-ft. adit. **Assays:** 200 oz. Ag from outcrop. **Ref:** 14, p. 45. 63, p. 22.

Whitehorse (16)

(see under zinc)

Wilbur Index

(see Lake Serene under copper)

Wild Rose (141)

(see under copper)

Wildcat (120)

(see under gold)

Winnie (142)

(see under copper)

Winter Coon (64)

(see under gold)

Zeta (121)

(see under gold)

SPOKANE COUNTY**Silver Hill (1)**

(see under tin)

STEVENS COUNTY**A and C (117)**

(see under copper)

Abe Lincoln

(see Comstock under lead)

Acme (158)

(see under lead)

Acme (F. H. and C.)

(see F. H. and C. under gold)

Admiral (219)

(see under copper)

Admiral Consolidated (91)

(see under zinc)

Advance (82)

(see under zinc)

Aguila (160)

(see under lead)

Aichan Bee (Austin, Mineral Hill, H & B) (243)

Loc: Center NE¼ sec. 15, (29-37E), Deer Trail dist. **Elev:** 2,700 to 3,650 ft. **Access:** 35 mi. by road from railroad at Davenport. **Prop:** 6 patented claims including the Austin. **Owner:** P. J. O'Brien, Spokane, Wash. (1951—). Mineral Hill Mining Co. (1930). Transcontinental Precious Metals Co. (1935). Aichan Bee Silver-Lead Mining Co., Spokane, Wash. (1918-

1926 and 1938-1943). **Ore:** Silver, lead, zinc. **Ore min:** Sphalerite, galena, pyrite, chalcopryrite. **Gangue:** Quartz. **Deposit:** Ore is found in a fracture zone in argillite and quartzite near contact with granite. Ore is disseminated in colorless quartzite. It is also found in a ledge in limestone. **Dev:** Adit more than 600 ft. long, 150-ft. drift (caved at portal, 1951). **Assays:** Ore from one zone said to carry 12% Pb, 18% Zn, 12 oz. Ag. A 4-ft. sample showed 1.9% Pb, 2.2% Zn, 1.75 oz. Ag. **Prod:** Small amount of Zn ore shipped about 1943. **Ref:** 30, p. 69. 46, pp. 108-109. 73, pp. 136-137. 98, 1920-1926. 99, 2/12/35. 104, 4/15/37, p. 35. 106, 4/3/30, 11/6/30. 112, 1918, p. 164. 141, p. 22. 150, p. 37. 157. 158.

Al Ki (116)

(see under lead)

Aladdin (139)

(see under lead)

Aladdin (Blue Ridge, Sierra Zinc)

(see Sierra Zinc under zinc)

Alberta (245)

(see under copper)

Alert

(see under gold)

Alice

(see under copper)

Alma (Black Witch) (159)

Loc: Sec. 27, (35-37E), Kettle Falls dist. **Elev:** 2,640 ft. **Prop:** 1 unpatented claim. **Owner:** Abandoned (1941). **Ore:** Said to be silver, lead, zinc, gold. **Ore min:** Pyrite. **Deposit:** Quartz vein in quartzite. **Dev:** 30-ft. shaft, several open cuts and adits total about 200 ft. **Ref:** 30, p. 58. 58, p. 3. 164, p. 225.

Amazon (185)

(see under copper)

Anaconda (96)

(see under lead)

Ark (Silver Queen) (155)

(see also E. M. C. under lead)

Loc: Near center N½ sec. 11, (35-37E), Kettle Falls dist. **Elev:** 1,970 ft. **Access:** 1 mi. by dirt road to State Highway 22 at a place 6 mi. S. of railroad at Kettle Falls. **Prop:** 9 patented and 10 unpatented claims, including the old E. M. C. property. **Owner:** D. Warfield, Cleveland, Ohio (1950). Ark Group Mining & Milling Co. (1915-1920). Ark Mines Co. (1918-1940). Continental Silver & Smelting Co. (1936). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Tetrahedrite, galena, sphalerite, chalcopryrite, pyrite. **Gangue:** Quartz, calcite. **Deposit:** Quartz lenses from a few inches to 3 or 4 ft. wide along lamination planes of argillite and limestone. Mineralized zone as much as 30 ft. wide. **Dev:** 100-ft. inclined shaft and 3 short drifts from the shaft, 150-ft. shaft, 1,700-ft. adit with a 130-ft. raise. These workings expose the vein to a depth of 250 ft. **Assays:** One sample assayed 10 oz. Ag, 1% Cu, 1% Pb, 1% Zn. Some samples said to run \$5 Au. **Prod:** 1915 (14 tons), 1916, 1918, 1921, 1922, 1929, 1937, 1,700 tons of ore milled in 1938, 250 tons of ore 1939, a few tons of conc. 1940, 1942, 841 tons of ore 1949. **Ref:** 7, pp. 125-126. 30, p. 58. 46, pp. 105-107. 69, p. 5. 97, 1916, 1918, 1921, 1922, 1929, 1938-1941. 98, 1918-1926. 104, 11/30/34, p. 23; 8/15/36, p. 28; 3/30/36, p. 22. 106, 12/3/28, p. 12; 3/3/30. 112, p. 166. 129, pp. 143-144. 158. 164, pp. 226-227.

Austin

(see Aichan Bee)

Avondale-Dome (127)

(see under lead)

- B and B (213)**
(see under copper)
- Bald Eagle (12)**
(see under gold)
- Banner**
(see Chinto under copper)
- Banshee (209)**
(see under copper)
- Baxter**
(see Snyder and Baxter)
- Bear Canyon (176)**
(see under copper)
- Bear Mountain (177)**
(see under lead)
- Bechtol (85)**
(see under lead)
- Beecher (14)**
(see under gold)
- Belcher (184)**
(see under copper)
- Benvenue**
(see Gold Reef under gold)
- Bertha M. (179)**
(see under lead)
- Big Chief (124)**
(see under lead)
- Big Iron (55)**
(see under iron)
- Black Canyon**
(see under lead)
- Black Horse**
(see Columbia Tungsten under tungsten)
- Black Witch**
(see Alma)
- Blanche**
Loc: Chewelah dist. **Ore:** Silver, copper. **Ore min:** Chalcocite. **Deposit:** 2-ft. quartz vein. **Assays:** 100 to 400 oz. Ag, 8% to 10% Cu. **Prod:** Prior to 1900. **Ref:** 12, p. 77. 13, p. 149.
- Bland**
(see under lead)
- Bliss**
(see Galena Hill under lead)
- Blue Bird (41)**
(see under gold)
- Blue Grass (29)**
(see under gold)
- Blue Ridge**
(see Sierra Zinc under zinc)
- Blue Star**
(see Eagle)
- Bluebird**
(see Loon Lake Copper under copper)
- Bluegrouse (154)**
Loc: Sec. 9, (35-38E), Kettle Falls dist. **Access:** 3 mi. from road. **Prop:** 2 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Silver, lead. **Deposit:** Quartz vein. **Dev:** 375-ft. adit (caved 1941). **Ref:** 30, p. 57.
- Bonanza (112)**
(see under lead)
- Bonanza Copper (227)**
(see under copper)
- Botts (120)**
(see under lead)
- Boundary Silver Lead**
(see Lucile under zinc)
- Brook (164)**
Loc: Sec. 7, (33-38E). **Access:** 4 mi. E. of Daisy by road. **Ore:** Silver. **Ref:** 158.
- Brooks (237)**
Loc: Near NE. cor. sec. 11, (29-37E), Deer Trail dist. **Elev:** 3,700 to 3,900 ft. **Access:** 10 mi. by road SE. of Fruitland. **Prop:** 3 claims: Brooks, Success, First Adventure. **Owner:** Abandoned (1941). Brooks Mining Co. (1915). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Stephanite, pyrite, galena, sphalerite, tetrahedrite. **Deposit:** Series of limestone and argillites intruded by lamprophyric dikes is cut by 5- to 7-ft. quartz veins. **Dev:** 50-ft. shaft, 80-ft. adit, another adit caved 100 ft. from portal, open cut. **Prod:** 2 carloads shipped prior to 1901. **Ref:** 7, p. 116. 30, p. 73. 88, p. 11. 100, 1901, p. 86. 164, pp. 192-193.
- Bruce Creek**
(see A and C under copper)
- W. J. Bryan**
(see Bechtol under lead)
- Buck Mountain**
Loc: 4 mi. N. of Cedar Canyon, Colville dist. **Access:** 12 mi. by road from railroad at Springdale. **Ore:** Silver, copper, lead, gold. **Ref:** 58, p. 11. 63, p. 113.
- Buffalo (109)**
Loc: Sec. 12, (40-42E), Northport dist. **Access:** 12 mi. by road to railroad at Boundary. **Owner:** Newton Hartman, Colville, Wash. **Ore:** Silver, lead, zinc, gold. **Ref:** 158.
- Bullion (61)**
(see under lead)
- Burrus (138)**
(see under zinc)
- Butte (25)**
(see under gold)
- Cantaloupe (165)**
Loc: Sec. 7, (33-38E), Kettle Falls dist. **Access:** 4 mi. E. of Daisy. **Ore:** Silver. **Ref:** 158.
- Cast Steel (76)**
(see under lead)
- Cedar Canyon**
Loc: Cedar Canyon dist. **Ore:** Silver, lead. **Prod:** 1912. **Ref:** 97, 1913, p. 799.
- Centennial (42)**
(see under copper)
- Center Star (125)**
Loc: Secs. 23 and 24, (37-39E), Colville dist. **Ore:** Silver, lead. **Ref:** 158.
- Charity**
(see F. H. and C. under gold)
- Chewelah Consolidated (178)**
(see under lead)

Chewelah Eagle
(see Eagle)**Chewelah Silver**
(see Fred B. under lead)**Chewelah Standard (194)**
(see under copper)**Chinto (186)**
(see under copper)**Chloride (223)**
(see under lead)**Chloride Queen (126)**
(see under lead)**City View (153)**
(see under gold)**Clara (103)**
(see under gold)**Cleveland (222)**
(see under lead)**Clugston**
(see Silver Trail under lead)**Columbia**
(see Iroquois under zinc)**Columbia River (149)**
(see under copper)**Columbia Tungsten (173)**
(see under tungsten)**Colville Queen**
(see Chloride Queen under lead)**Comstock (18)**
(see under copper)**Comstock (Abe Lincoln) (56)**
(see under lead)**Contention**
(see Mountain View)**Copper Butte (33)**
(see under copper)**Copper King (202)**
(see under copper)**Copper King (95)**
(see under lead)**Copper Queen (181)**
(see under copper)**Copper Queen (187)**
(see under copper)**Coyote (68)**
(see under lead)**Coyote (Rightside)**
(see Rightside under copper)**Coyotte**
(see Coyote under lead)**Crown Point (47)**
Loc: Sec. 7, (39-38E), Kettle Falls dist. **Owner:** Dr. J. N. Norton, Daisy, Wash. **Ore:** Silver. **Ref:** 158.**Daisy**
(see Daisy-Tempest)**Daisy-Tempest (Silver Mountain) (166)**
(includes Daisy and Tempest mines)
(see also Tempest)

Loc: Secs. 6 and 7, (33-38E), on W. slope of Huckleberry Mtns., Kettle Falls dist. **Elev:** 2,900 to 3,400 ft. **Access:** 5 mi. E. of Daisy by good truck road. 22 mi. to railroad at Kettle Falls. **Prop:** 16 claims and additional property total about 580 acres. **Owner:** Daisy Silver-Lead Mines, Inc., Spokane, Wash. (1948-1952). Silver Mountain Mining Co. (1916-1922). Consolidated Silver Mountain Mining Co., Ltd. (1923-1933). Carl Lawson & Associates (1942-1943). **Ore:** Silver, lead, copper, gold. **Ore min:** Galena, chalcopryrite, pyrite (nickeliferous), sphalerite, marcasite, scheelite, tetrahedrite, arsenopyrite. **Gangue:** Quartz, calcite. **Deposit:** At least 4 quartz veins from a few in. to 12 ft. in width cut a series of argillites and quartzites intruded by diorite. **Dev:** 4 adits and a shaft on Daisy claim total 4,000 ft., and an adit and shaft on Tempest claim total 2,600 ft. **Improv:** 50-ton mill, shops, and 4 houses (1948). **Assays:** 1 to 20 oz. Ag, Ni, Co reported. Weighted av. of 4 samples shows 4.6-ft. width, 0.5% Pb, 1.3% Zn, 0.04% Cu, 4.82% As, 0.005 oz. Au, 2.22 oz. Ag. **Prod:** 2,000 tons prior to 1890, 1915, 1917, 1923, 1929, 1934-35 (50 tons of conc.). **Ref:** 12, pp. 26, 73-74, 79. 13, p. 119. 30, p. 65. 37, pp. 65-67. 73, pp. 124-126. 97, 1916, 1918, 1924, 1926, 1930, 1935, 1936. 98, 1922-1926. 104, 6/30/33, p. 18; 7/30/33, p. 19; 6/15/35, p. 27. 106, 11/17/30. 112, p. 203. 129, pp. 136-143. 141, p. 22. 157. 158. 164, pp. 227-230.

Dead Medicine
(see Silver Trail under lead)**Deep Creek (79)**
(see under zinc)**Deep Lake**
(see Farmer under zinc)**Deer Trail (Providence, Venus) (236)**
(see also Legal Tender, Providence, Hoodoo)

Loc: Secs. 1 and 12, (29-37E), Deer Trail dist. **Elev:** 3,550 to 3,775 ft. **Access:** 8 mi. from Fruitland by road. **Prop:** Idaho, Hoodoo, Runyan Fr., Jolly Boy, Moonshine, Elephant, Legal Tender, Deer Trail, Hoodoo Ext., Victor Fr., Providence, Royal Ext., Happy Home, Splawn, Deen claims. **Owner:** Alpine Uranium Corp., Salt Lake City, Utah (1954—). Deer Trail Consolidated Mining Co. (1902-1909). Consolidated Mines Co. (1918-1924). Western States Mine Co. (1924). Venus Silver Mines Co. (1925-1930). Geo. Vervaeke (1934). Metals Development Co. (1939). Max Slate, Albany, Oreg. (1951). **Ore:** Silver, lead, zinc, copper. **Ore min:** Argentiferous galena, argentite, cerargyrite, sphalerite, azurite, malachite, pyrrargyrite. **Deposit:** Quartz-calcite veins cutting argillite and limestone along a shear zone. In one place the ore body is 2½ ft. thick. **Dev:** 11 adits, drifts, and raises total more than 4,000 ft. of underground workings. **Improv:** 125-ton flotation mill (1954). **Assays:** Ore said to av. about 20 oz. Ag. **Prod:** 1906-1908, 1911-1912, 1917-1918, 1924, 1927, 1929, 1934, 1939, 1940, 1945-1947. More than \$3,000,000 total production reported. **Ref:** 7, pp. 117-118. 30, p. 69. 63, pp. 114-115. 73, pp. 134-136. 88, pp. 9-10. 97, 1907, 1908, 1912, 1913, 1918, 1919, 1925, 1928, 1930, 1935. 98, 1920-1926. 104, 9/30/35, p. 24. 113, 8/34, p. 13. 114, no. 5, 1909, p. 58. 129, p. 149. 150, p. 30. 164, pp. 195-201.

Defender (30)
(see under zinc)**Delmonico**
(see Jay Dee)**Dora**
(see Acme under lead)

Double Eagle (218)
(see under lead)

Double Standard (57)
(see under copper)

Douglas
(see under tungsten)

Douglas Hunter
(see under gold)

E. M. C. (156)
(see under lead)

Eagle (Blue Star, Redwood, Chewelah Eagle) (203)
(see also Redwood)

Loc: Near center N½ sec. 5, (32-41E) and sec. 32, (33-41E). **Elev:** 3,000 ft. **Access:** 4½ mi. by road NE. of Chewelah. **Prop:** 1 patented, 7 unpatented claims, and some deeded land. **Owner:** Chewelah Eagle Mining Co. (1949-1951). Eagle Gold Mining Co. (1908). Blue Star Mining Co. (1911-1926). **Ore:** Silver, lead, copper, zinc, gold, molybdenum. **Ore min:** Galena, tetrahedrite, sphalerite, chalcoppyrite, pyrite, pyrrhotite, cerussite, anglesite, malachite, azurite, molybdenite. **Gangue:** Quartz. **Deposit:** Irregular lenses and replacements in dolomitic limestone near granite contact. Ore bodies from a few in. to 3 or 4 ft. wide and a few ft. to 50 ft. or more long. **Dev:** Main level with more than 3,000 ft. of crosscuts and drifts. Shaft 217 ft. deep. **Prod:** Prior to and during 1890, 1911, 1925. Production to 1925 was \$150,000. **Ref:** 7, pp. 105-106. 12, pp. 26, 75. 13, p. 121. 30, p. 32. 63, p. 113. 68, pp. 7, 21. 97, 1912, p. 923; 1926, p. 469. 98, 1922-1926. 114, no. 5, 1909, p. 57. 150, p. 29. 158, 164, pp. 148-149.

Eagle-Newport
(see Aguila under lead)

Easter Sunday (53)
(see under gold)

Easy Money
(see Magma under zinc)

Echo (123)
(see under zinc)

Edna (216)
(see under copper)

Eldorado (102)
(see under lead)

Eldorado (Magma)
(see Magma under zinc)

Electric Point (86)
(see under lead)

Enterprise
(see under gold)

Enterprise
(see Jay Dee)

Esther Hilbert
Loc: Deer Trail dist. **Ore:** Silver. **Ref:** 63, p. 115.

Eureka (3)
(see under gold)

Eureka (Uncle Sam)
(see Uncle Sam under lead)

Eureka and Orient
(see Eureka under gold)

Examiner
(see under gold)

Excelsior
(see under lead)

Express
(see St. Paul-Express under copper)

F. H. and C. (6)
(see under gold)

Faith
(see F. H. and C. under gold)

Farmer (84)
(see under zinc)

Finley
(see under lead)

First Thought (26)
(see under gold)

Fish (157)
Loc: Sec. 24, (35-37E). **Owner:** John Marty, Kettle Falls, Wash. (1941). **Ore:** Silver, lead, copper. **Dev:** 250-ft. adit, 60-ft. shaft, 80-ft. crosscut. **Ref:** 158.

Fissure (10)
(see under gold)

Flannigan
(see Iroquois under zinc)

Fred B. (206)
(see under lead)

Frisco Standard (108)
Loc: S½NW¼ sec. 12, (40-42E), on Jubilee Cr., just S. of international boundary. **Elev:** 3,700 ft. **Access:** 14 mi. by road from railroad at Boundary. 18 mi. by road from railroad at Metaline Falls. **Prop:** 9 claims, of which 7 are patented: H. R. H., Big Strike, Frisco, Buffalo, Standard, Syndicate, Boulder. **Owner:** Northport Operating Co., Olympia, Wash. (1953—). Frisco Standard Mining Co. (1905-1953). Northport Mining & Development Co., Inc., Olympia, Wash. (1951). **Ore:** Silver, lead, copper, zinc, gold. **Ore min:** Galena, tetrahedrite, chalcoppyrite, sphalerite, pyrrargyrite, cerargyrite, bromyrite, azurite, malachite, stannite. **Deposit:** Quartz veins or lenses up to 7 ft. wide in sheared graphitic schist. Veins occur along the planes of schistosity. One vein varies from a few inches to 6 ft. in width. **Dev:** 1,000 ft. of accessible workings and several caved adits. **Improv:** Cookhouse and cabin (1951). **Assays:** Sample across 5-ft. width in lower adit showed 1.00% Zn, 0.10% Pb, 0.23% Cu, 3.35 oz. Ag. 3 small shipments showed 49.2 to 72.8 oz. Ag, 7% to 16.8% Pb, 2.7% to 4.6% Cu, tr. to 0.01 oz. Au. **Prod:** Small, intermittent. **Ref:** 7, pp. 58-59. 30, p. 95. 73, p. 104. 97, 1905, p. 337; 1908, p. 581. 98, 1922-1926. 112, p. 179. 128, pp. 61-62. 129, pp. 112-114. 150, p. 37. 157. 158. 164, p. 304.

Galena Farm (130)
(see under lead)

Galena Hill (20)
(see under lead)

Galena Knob (127A)
(see under lead)

Galena Ridge
(see Galena Farm under lead)

Georgic (36)
(see under copper)

Germania (234)
(see under tungsten)

Giant Silver

(see Red Cloud under copper)

Gillete

(see Avondale-Dome under lead)

Gladstone (87)

(see under lead)

Globe (34)

(see under copper)

Gold Bar (113)

(see under gold)

Gold Hill

(see under gold)

Gold Ledge (148)

(see under gold)

Gold Reef (147)

(see under gold)

Golden Hope

(see Sunday under gold)

Golden Reef

(see Gold Reef under gold)

Good Enough

(see Sandiego)

Goodenough (167)

Loc: Sec. 7, (33-38E), 4 mi. E. of Daisy, Kettle Falls dist.
Ore: Silver. Ref: 158.

Gorien Zinc

(see under zinc)

Graves (35)

(see under copper)

Gray Eagle

(see Rightside under copper)

Great Republic (58)

(see under copper)

Grubstake

Loc: 7 mi. NE. of Orient. Elev: 2,700 ft. Access: Road. Prop: 2 unpatented claims. Owner: F. C. Forsyth and L. E. Gourlie, Orient, Wash. (1934). Ore: Gold, lead, zinc. Ore min: Galena. Deposit: 2-ft. vein in quartzite. Dev: A 225-ft. adit with winze and a 50-ft. raise to the surface. Assays: Old assay reported 12 oz. Au, and a total of \$34.00 per ton. Ref: 158.

Guaranty

Loc: Blue Cr. area. Ore: Silver. Prod: 1914. Ref: 97, 1914, p. 652.

H & B

(see Aichan Bee)

Ham (171)

(see under lead)

Hartbauer (94)

(see under lead)

Hartford

(see Krug under copper)

Hazel (Lake View) (99)

Loc: Near center sec. 19, (40-42E), on N. side of highest point of Red Top Mtn., Northport dist. Elev: 4,500 ft. Prop: 6 claims: Hazel, Wild Cat, Gumbo, Silver Bell, Silver Horse, Little Creek. Owner: H. V. Rieper (1924). Ore: Silver, lead. Ore min: Galena, silver sulfides, pyromorphite. Deposit: Galena

and silver sulfides in quartz. Assays: Values chiefly in silver. Prod: One lot of ore shipped. Ref: 73, p. 102. 97, 1922, p. 256.

Hecla (205)

(see under copper)

Helena Johnson (81)

(see under lead)

Hi Cliff

(see Uncle Sam under lead)

High Grade (Jay Dee)

(see Jay Dee)

High Grade (Turk)

(see Turk under copper)

Highland (106)

(see under lead)

Homebuilder (48)

(see under lead)

Homestake (45A)

(see under gold)

Honest John (212)

Loc: Sec. 11, (29-40E), 2 mi. SE. of Springdale, Loon Lk. dist. Access: Near road. Prop: 3 unpatented claims. Owner: Abandoned (1941). Honest John Mining Co. (1897-1902). Ore: Silver, lead, gold. Deposit: No visible mineralization, though a 5½-ft. vein is reported. Dev: 120-ft. adit, small shafts, open cuts. Assays: Said to run \$40 Pb, Ag. Ref: 30, p. 61. 63, p. 113. 88, p. 8.

Hoodoo (233)

(see also Deer Trail)

Loc: Sec. 12, (29-37E), Cedar Canyon dist. Elev: 3,610 ft. Access: 10 mi. SE. of Fruitland by road. Prop: 1 claim of the Deer Trail mine. Owner: Paso Robles Mining Co. (1949). Ore: Silver, lead, zinc, copper. Ore min: Pyrite, chalcopyrite, sphalerite, galena, tetrahedrite, malachite, limonite. Deposit: Quartz vein 2 to 3 ft. wide in metamorphic rocks near intrusive camptonite dikes. Vein is sparsely mineralized. Dev: Adit at least 150 ft. long and said to be 400 ft. long. Ref: 7, pp. 117-118. 68, p. 15.

Hope

(see F. H. and C. under gold)

Hope and Twin Cabins (46)

(see under copper)

Hubbard (60)

(see under lead)

Hunter

(see Jackson under zinc)

I. O. U. (150)

Loc: Sec. 7, (36-38E), on SE. side of Sunday claim, Kettle Falls dist. Access: Road nearby. Prop: 1 claim, abandoned 1941. Formerly part of the Hudson Bay group. Ore: Silver. Ore min: Native silver. Deposit: 1-ft. quartz vein in a granite dike appears to be barren but is said to have contained a lens of ore-bearing native silver. Dev: 150-ft. adit, two 60-ft. shafts. Prod: Probably has produced. Ref: 30, p. 57. 164, pp. 232-233.

Ibex (129)

(see under lead)

Imperial Copper (192)

(see under copper)

Indian

(see Eureka under gold)

International (23)

(see under gold)

Interstate

(see under gold)

Iron Cap

(see Ham under lead)

Iron Horse

(see under gold)

Iron Mask (13)

(see under zinc)

Iroquois (97)

(see under zinc)

Jack and Jill

Loc: Northport dist. **Owner:** Silver Mountain Mining Co. (1935-1936). **Ore:** Silver. **Ref:** 104, 6/15/35, p. 27; 7/30/36, p. 25.

Jackson (101)

(see under zinc)

Jay Dee (Delmonico, Enterprise, High Grade) (190)

Loc: SW¼ sec. 31, (33-41E), ½ mi. SW. of the United Copper mine. **Elev:** 2,515 ft. **Access:** 4 mi. by road NE. of railroad at Chewelah. **Prop:** 6 unpatented claims. **Owner:** Jay Dee Mining Co. (1935-1941). New Dominion Copper Mining & Development Co. (1909). High Grade Silver & Copper Mining Co. (1918). Enterprise Mining Co. (1929-1932). **Ore:** Silver, lead, copper, zinc. **Ore min:** Galena, tetrahedrite, sphalerite, chrysocolla, malachite, azurite, chalcocite. **Deposit:** Small quartz stringers from less than one inch to several inches wide in limestone. Ore minerals sparsely distributed in the quartz. **Dev:** 160-ft. shaft, 100-ft. adit with a 50-ft. winze in the adit. **Assays:** Said to carry high values in Ag. Ore shipped said to have netted \$800 per ton. **Prod:** Some hand-sorted ore shipped. **Ref:** 7, p. 105. 30, p. 31. 97, 1916, p. 614; 1929, p. 428. 98, 1918-1925. 99, 1/8/35. 104, 1/15/32, p. 29; 8/30/34, p. 22; 1/15/37, p. 28. 106, 8/2/29, 5/19/32. 116, no. 2, 1909, p. 54. 158, 164, pp. 144-145.

Jay Gould (199)

(see also Fred B. under lead)

Loc: Near center E½ sec. 8, (32-41E). **Elev:** 2,700 ft. **Access:** 4 mi. by road E. of Chewelah. **Prop:** Includes Fred B. (Chewelah Silver, Nabob) property. 20 acres of deeded land and 4 claims: Red Jack, McAdoo, North Pole, Jay Gould. **Owner:** O. C. Niles (1941). Travelers Mining & Milling Co. (1908). Jay Gould Mining Co. (1907-1918). New Currency Mining Co. (1918-1922). Chewelah Silver Mining Co. (1922-1926). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Galena, pyrite, sphalerite, chalcopryrite, some tetrahedrite, bornite, malachite. **Deposit:** Several large quartz veins and numerous small veinlets in argillite near contact with granite and basic dikes. **Dev:** 200-ft. inclined shaft, from which two levels several hundred feet long have been driven. **Assays:** Dike reported to assay 60¢ or less Au. Ore shipped in 1939 netted \$50 Ag, Pb. **Prod:** Production to 1920 about \$6,200. Shipped in 1939. **Ref:** 7, pp. 106-107. 30, p. 34. 97, 1907, p. 476; 1940, p. 479. 98, 1918-1926. 112, p. 193. 114, no. 5, 1909, p. 57. 116, no. 6, 1908, p. 122. 117, no. 1, 1922, p. 41. 158. 164, pp. 151-152.

Jayhawker (54)

(see under copper)

John Day (W. B. Stuart) (189)

Loc: SE¼ sec. 31, (33-41E), on SW. spur of Eagle Mtn. just SE. of the United Copper mine, Chewelah dist. **Ore:** Silver, lead, copper. **Ore min:** Argentiferous galena, a little chalcopryrite and malachite. **Deposit:** A stockwork of small mineralized quartz veinlets in limestone. **Dev:** 120-ft. shaft from which several hundred feet of drifts have been driven. **Assays:** Values principally in silver. **Prod:** Has produced silver ore. **Ref:** 158.

John Hays (162)
Loc: Sec. 22, (34-37E), Summit dist. **Access:** Near road. **Prop:** 3 unpatented claims. **Owner:** John Marty, Kettle Falls, Wash. (1941). **Ore:** Said to be silver, gold, copper, lead. **Deposit:** Quartz vein. **Dev:** 100 ft. of adit. **Ref:** 30, p. 65.

Johnny Boy

(see Moonshine-Johnny Boy)

Juno-Echo (195)

(see under copper)

Jupiter

(see Last Chance under lead)

Just Time (105)

(see under lead)

Katy

(see Blue Grass under gold)

Kemp Komar

(see Loon Lake under copper)

Kettle River (Galena Hill)

(see Galena Hill under lead)

Kettle River (White Elephant)

(see White Elephant under gold)

Key West

(see Loon Lake under copper)

Keystone (88)

(see under iron)

King

(see Edna under copper)

Koyotte

(see Rightside under copper)

Krug (175)

(see under copper)

Lake View

(see Hazel)

Lakeview

(see Roosevelt)

Last Chance (80)

(see under lead)

Lead King (90)

(see under lead)

Leadville (121)

(see under lead)

Legal Tender (231)

(see also Deer Trail)

Loc: Sec. 1, (29-37E), Deer Trail dist. **Prop:** Part of Deer Trail property. **Ore:** Silver, lead. **Ore min:** Argentiferous galena, cerussite, sphalerite, silver sulfide, silver chloride. **Gangue:** Quartz. **Deposit:** Ore occurs in bunches and lenses in quartz veins in a brecciated zone parallel to the bedding of the enclosing argillite. **Ref:** 97, 1912, p. 923. 164, pp. 197-198.

Lem (51)

(see under gold)

Liberty Copper (174)

(see under copper)

Little Frank (235)

(see under lead)

Little Gem

Loc: 3 mi. NW. of Pierre Lk., Orient dist. **Prop:** 4 claims. **Owner:** Lincoln Mining & Development Co. (1897). **Ore:** Silver, gold, copper. **Dev:** 75-ft. shaft. **Assays:** 34 oz. Ag, \$3.60 Au, 5% Cu. **Ref:** 158.

Little Giant (7)

(see under lead)

Lone Star (64)

Loc: Sec. 35, (40-39E), Northport dist. **Access:** ½ mi. from road. **Prop:** 150 acres of patented land. **Owner:** T. T. Richardson, Northport, Wash. (1941). **Ore:** Silver, lead, zinc, gold. **Deposit:** Quartz vein av. 12 to 14 ft. in width has been traced for 1,300 ft. on the surface. **Dev:** 75-ft. inclined shaft. **Prod:** Reportedly shipped to Northport smelter. **Ref:** 30, p. 102.

Longshot (141)

(see under lead)

Loon Lake Copper (210)

(see under copper)

Lottie (43)

(see under copper)

Lucile (98)

(see under zinc)

Lucky Boy (128)

(see under lead)

Lucky Boy (Turk)

(see Turk under copper)

Lucky Charlie (16)

(see under copper)

Lucky Four (89)

(see also Electric Point)

Loc: Sec. 18, (39-42E), Northport dist. **Prop:** Part of Electric Point property. **Ore:** Silver, copper, lead, gold. **Assays:** 1 truckload shipped in 1934 carried 353 oz. Ag, 1.6% Cu, 1.7% Pb, 0.023 oz. Au. **Prod:** 1934. **Ref:** 99, 12/18/34. 106, 11/34, p. 12.

Lucky Stone (122)

(see under lead)

M. and C.

(see U. S. Copper Gold)

McAdoo (196)

(see under gold)

McDonald

(see Keystone under iron)

McKinley (4)

(see under gold)

McKinley (39)

(see under lead)

McNally (49)

(see under copper)

Magma (133)

(see under zinc)

Maple Leaf

(see Melrose)

Margarete (1)

(see under lead)

Maryland

(see Bonanza Copper under copper)

Melrose (Paragon, Maple Leaf) (92)

Loc: Sec. 28, (40-41E), 4 mi. S. of the town of Boundary. **Elev:** 3,000 ft. **Access:** 1½ mi. SE. of the Northport-Boundary highway by truck road. 4 mi. to railroad at Boundary. **Prop:** 3 unpatented claims. **Owner:** Ben Hofer, Northport, Wash. (1941). Paragon Mining & Development Co. (1915). Melrose Mining Co. (1918-1938). **Ore:** Silver, lead, zinc, copper. **Ore min:** Tetrahedrite, galena, sphalerite, pyrite. **Gangue:** Quartz. **Deposit:** 6-ft. vein in argillite contains irregular scattered bunches of ore. **Dev:** 1,600 ft. of underground work on 2 levels. **Assays:** 75 tons shipped prior to 1921 returned a gross value of \$8,000 in Ag. A 3-ton shipment returned 17.5% Zn, 8% Pb, 2.6% Cu, 1.01% Bi, 1.7% Sb, 73.2 oz. Ag. **Prod:** 1913, 1937, 1938. **Ref:** 30, p. 101. 97, 1913, p. 801; 1938, p. 460; 1939, p. 491. 98, 1920-1926. 99, 2/12/35. 104, 6/15/34, p. 29; 1/30/35, p. 23. 106, 6/16/32, 7/6/33. 112, p. 190. 129, pp. 116-117. 141, p. 22.

Mexico

(see Queen)

Michigan (27)

(see under gold)

Michigan Boy (142)

(see under lead)

Middleport (140)

(see under zinc)

Mineral Belt (65)

(see under lead)

Mineral Hill

(see Aichan Bee)

Minnehaha (191)

(see under copper)

Minorca (44)

(see under copper)

Mint

(see under copper)

Monahan (226)

(see under copper)

Monday Morning (135)

(see under lead)

Montana and Washington (8)

(see under copper)

Montgomery (201)

(see under copper)

Moonlite

(see Morning)

Moonshine-Johnny Boy (239)

Loc: Sec. 11, (29-37E), Deer Trail dist. **Access:** Near road. **Prop:** 2 unpatented claims. **Owner:** Barton Brothers, Chico, Calif. (1941). **Ore:** Silver, lead. **Deposit:** Quartz vein av. about 2 ft. in width. **Dev:** 400 ft. of adit, raises, and drifts. Also open cuts. **Ref:** 13, p. 126. 30, p. 69.

Moore (70)

(see under gold)

Morning (Moonlite) (134)

(see also Monday Morning under lead)

Loc: S½NW¼ sec. 4, (37-41E). **Access:** 22 mi. by road to railroad at Colville. **Prop:** 5 unpatented claims. **Owner:** Moonlite Mining Co. (1949). **Ore:** Silver, lead, zinc, cadmium, gold, copper. **Gangue:** Quartz. **Deposit:** Vein said to be 4½ ft. wide and 1,500 ft. long. **Dev:** 150-ft. adit and several other small adits and drifts total about 400 ft. of underground work.

Assays: 6 tons produced in 1948 av. 34% Pb, 30% Zn. Ore av. \$30 Ag, Pb, Zn, Au. Gold values low. **Prod:** 1929, 6 tons in 1948. **Note:** Probably this is the same as the Morning property. **Ref:** 13, p. 127. 30, p. 89. 46, p. 114. 68, p. 14. 97, 1929, p. 428. 110, 7/48, p. 5. 111.

Morning Star

(see under gold)

Mountain View (Contention) (66)

Loc: Sec. 35, (40-39E), on N. side of Squaw Cr., NW. of Providence property. **Elev:** 2,600 ft. **Access:** 3 mi. by road from railroad at Northport. **Prop:** 2 unpatented claims. **Owner:** T. T. Richardson, Ben Hofer, and John Colby, Northport, Wash. (1941). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Pyrite, chalcopryrite, sphalerite, galena, tetrahedrite. **Gangue:** Quartz and reportedly fluorite. **Deposit:** Interbedded limestone and argillite in which are a 1-ft. and a 9-ft. quartz vein. The 9-ft. vein has a 13-in. band of solid sulfides along the footwall. **Dev:** 350-ft. adit, 50-ft. shaft, 30-ft. shaft. **Assays:** 2½ tons av. \$80 per ton. **Prod:** 2½ tons of sorted ore in 1921. **Ref:** 30, p. 91. 46, p. 63. 63, p. 108. 158. 164, p. 314.

Mountain View Extension (67)

Loc: Adjacent to Mountain View property, Northport dist. **Ore:** Silver, gold, lead. **Ref:** 63, p. 108.

Mullen (207)

(see under lead)

Myeerah (110)

(see under lead)

Myrtle

(see under lead)

Nabob

(see Fred B. under lead)

Nellie S.

(see Chewelah Standard under copper)

Nest Egg (32)

(see under gold)

Nevada (215)

(see under lead)

Newland

(see Longshot under lead)

Newport

(see Aguila under lead)

Niles (197)

(see under lead)

Noble Four

(see under copper)

Norman King

(see under lead)

North Monitor (225)

Loc: SW¼ sec. 13, (30-37E), on W. slope of Huckleberry Mtns. **Access:** ½ mi. by trail, 8 mi. by road from Fruitland. **Owner:** Long Lake Lumber Co., Spokane, Wash. (1951). **Ore:** Silver, lead, zinc. **Ore min:** Galena, sphalerite. **Deposit:** Sparsely disseminated galena and sphalerite in limestone. **Dev:** 400-ft crosscut adit, open cuts. **Ref:** 157.

Northern Light (74)

(see under lead)

Northport

(see Deep Creek under zinc)

Norway King

(see under lead)

Oakshott (136)

(see under lead)

Old Abe

(see under copper)

Old Dominion (145)

Loc: Near NW. cor. sec. 9, (35-40E). **Elev:** 2,925 to 3,375 ft. **Access:** 7½ mi. by road from railroad at Colville. **Prop:** 10 patented claims, including: Ella, Reeves, Old Dominion, Ophir Boy, Tillie P. Also 700 acres of deeded land, and 4 unpatented claims: Chickamin, Cheechaco, Friday No. 1 and No. 2. **Owner:** E. B. Gibbs and I. M. Hunley, Colville, Wash. (1949—). Old Dominion Mining & Milling Co. (1892-1918). Dominion Silver-Lead Mining Co. (1918-1928). **Ore:** Silver, lead, zinc. **Ore min:** Galena, cerussite, anglesite, sphalerite, secondary silver sulfides, native silver, stephanite, tetrahedrite. **Gangue:** Quartz, calcite, siderite, dolomite. **Deposit:** Irregular lenticular ore bodies in limestone 6 in. to 10 ft. wide. Ore has been found at places 2,500 ft. apart. Richest ore was near the surface and has largely been mined out. **Dev:** About 8 mi. of workings on at least 11 levels. **Assays:** Shipments from upper workings showed the ore to contain 100 to 400 oz. Ag and 13% to 60% Pb. A 10-ft. width reported to show 98.3 oz. Ag, 12% Pb, 17.4% Zn. Ore contains trace of gallium. **Prod:** More than \$625,000 by 1920. One report says about \$2,000,000 was produced prior to 1897. \$20,000 produced 1924. Produced 1936-1940. **Ref:** 7, pp. 126-130. 12, pp. 12, 26, 72. 13, p. 118. 30, p. 52. 63, p. 112. 73, pp. 120-123. 97, 1907, 1915, 1921, 1923-1925, 1928, 1929, 1935-1941. 98, 1920-1926. 104, 5/15/34, p. 24. 106, no. 16, 1921, pp. 1-2. 112, pp. 176, 195. 141, pp. 20, 22. 158. 164, pp. 171-173.

O-Lo-Lim (246)

(see under copper)

O'Neal

(see Rightside under copper)

Ora

(see under copper)

Orazada (244)

Loc: SE¼NW¼ sec. 27, (29-37E), Deer Trail dist. **Access:** Road. **Prop:** 40-acre Indian Agency lease. **Owner:** West King Mining Co., lessee (1941). Orazada Mines Corp. (1929). **Ore:** Silver, lead, antimony, gold, zinc. **Ore min:** Jamesonite, pyrite, arsenopyrite, galena, sphalerite. **Gangue:** Quartz, barite, calcite. **Deposit:** Narrow mineralized breccia zones in argillite and limestone. Heavy gossan on the surface. **Dev:** 2,400-ft. adit, another adit, open cuts. **Assays:** Said to av. \$15.00 per ton. **Prod:** Test shipment in 1940. **Ref:** 30, p. 67. 46, pp. 110-111. 97, 1928, p. 703. 106, 12/5/29, p. 25. 158.

Orchid (221)

Loc: Secs. 3 and 4, (30-38E), Cedar Canyon dist. **Access:** Near road. **Prop:** 4 claims: Orchid, Laura E., Cyclone, Cornell. **Owner:** Mr. Barton, Fruitland, Wash. (1941). Orchid Mining Co. (1902). **Ore:** Silver, lead, copper, zinc. **Ore min:** Argentite, cerargyrite. **Deposit:** Quartz vein with some calcite and barite. **Dev:** A shaft, adits, drifts aggregating 1,750 ft. **Prod:** 3 tons of high-grade ore shipped in 1900. **Ref:** 30, p. 74. 88, pp. 11-12.

Ore Cache (144)

(see under lead)

Orient Eureka

(see Eureka under gold)

Oro Cache

(see Ore Cache under lead)

Owen

(see Lucile under zinc)

Paragon

(see Melrose)

Payne (198)

(see under copper)

Pedivar**Loc:** Orient dist. **Ore:** Silver, gold. **Ref:** 99, 1/8/35.**Pedro (40)**

(see under gold)

Perry (2)

(see under lead)

Pioneer

(see Longshot under lead)

Plata Fino (240)**Loc:** Sec. 11, (29-37E), Cedar Canyon dist. **Access:** Road. **Prop:** 1 unpatented claim. **Owner:** Barton Brothers, Chico, Calif. (1941). **Plata Fino Mining Co.** (1918-1920). **Ore:** Silver, lead. **Deposit:** 2-ft. quartz vein. **Dev:** 250 ft. of adit and shaft, caved (1941). **Ref:** 30, p. 71. 63, p. 115. 112, p. 197. 164, p. 190.**Plata Rica (241)****Loc:** Sec. 11, (29-37E), Cedar Canyon dist. **Owner:** Plata Fino Mining Co. (1918-1920). **Ore:** Silver, lead. **Prod:** Has produced. **Ref:** 63, p. 115. 100, 1896, p. 320. 106, 10/1/29. 164, p. 190.**Plug (83)**

(see under zinc)

Pomeroy (52)

(see under zinc)

Pop (37)

(see under copper)

Providence (232)

(see also Deer Trail)

Loc: SE¼ sec. 1, (29-37E), Deer Trail dist. **Prop:** 1 claim of Deer Trail group. **Owner:** Perdiver Mining Co. (1934). **Providence Mining Co.** (1905-1908). **Reata Mining & Milling Co.** (1914). **Venus Silver Mines Co.** (1924-1930). **Mining Corp. of America** (1924-1930). **Ore:** Silver, lead. **Gangue:** Quartz, calcite. **Deposit:** Ore occurs as tabular bodies and lenses in quartz veins which are parallel to the bedding of the enclosing calcareous argillite, which near the ore is highly brecciated. **Prod:** More than \$50,000 prior to 1914. Produced 1922, 1925, 1928-1930, 1940. **Ref:** 33, 1908, p. 399. 73, pp. 134-136. 97, 1905, 1907, 1911, 1922, 1925, 1928-1930, 1941. 98, 1925, p. 1836; 1926, p. 1599. 104, 10/30/34, p. 22. 105, 2/14, p. 272. 106, no. 15, 1924, pp. 1-2; 9/1/28. 164, p. 201.**Providence (63)**

(see under lead)

Quadra

(see under gold)

Queen (Silver Queen, Queen & Seal, Mexico, Silver Basin, Silver Seal) (238)**Loc:** NE¼SW¼ sec. 11, (29-37E), at head of S. Fk. of Cedar Cr. **Elev:** 3,800 to 3,850 ft. **Access:** 10½ mi. from Fruitland by road. **Prop:** 13 unpatented claims, including: Log Cabin, Queen, Silver Seal Fr. **Owner:** J. G. Glasgow, Hunters, Wash. (1941). **Silver Basin Mining Co.** (1902-1924). **Seal & Queen Consolidated Mining Co.** (1907). **Silver Glance Mines Development Co.** (1929). **Commodore Mines Corp.** (1928-1931). **Silver Seal Mining Co.** (1931). **Queen & Seal Mining Co.** (1935-1939). **Ore:** Silver,lead, zinc. **Ore min:** Argentite, cerargyrite, pyrite, galena, sphalerite, azurite, malachite, native silver. **Deposit:** 1- to 3-ft. quartz lenses in limestone and argillite. Ore now largely stoped out, but parallel ore bodies may occur. **Dev:** 1,370-ft. crosscut adit, 300-ft. shaft with 4 levels, 206-ft. shaft, 125-ft. adit, considerable stoping. **Assays:** Ore av. 150 to 200 oz. Ag in early operations. A 4-ton shipment is said to have netted \$43.76 per ton. **Prod:** \$6,000 in 1917, \$250,000 by end of 1928, 1937, 1938, 1940. **Ref:** 30, pp. 67-68, 70. 73, p. 136. 88, pp. 10-11. 97, 1907, 1908, 1921, 1922, 1929, 1938, 1939, 1941. 98, 1920-1925. 104, 11/30/35, pp. 25-26; 8/15/36, p. 28. 106, 9/1/28; 12/3/28, p. 12; 10/1/29; 1/2/30; 6/18/31; 7/16/31. 112, p. 202. 114, no. 5, 1909, p. 58. 141, p. 22. 158. 164, pp. 193-195.**Queen & Seal**

(see Queen)

R. J. (118)

(see under lead)

Rainbow**Loc:** Northport dist. **Owner:** Silver Crest Mining & Milling Co. (1924-1926). **Ore:** Silver, lead, cobalt. **Ref:** 98, 1925, p. 1832; 1926, p. 1594.**Ranch View (100)**

(see under lead)

Rattler**Loc:** 7 mi. W. of Cedar Canyon. **Ore:** Silver. **Ref:** 63, p. 115.**Reardon Copper**

(see Turk under copper)

Red Cloud (230)

(see under copper)

Red Lion (22)

(see under copper)

Red Sheaf (114)

(see under gold)

Red Top (93)

(see under lead)

Redwood (204)

(see also Eagle)

Loc: Sec. 5, (32-41E). **Access:** 5 mi. E. of Chewelah on W. flank of Pend Oreille Mtns. by road. **Prop:** 1 patented claim and 200 acres of deeded land. Now part of Chewelah Eagle Mining Co. property. **Owner:** Dr. S. P. McPhearson, Chewelah, Wash. (1941). **Ore:** Silver, lead. **Ore min:** Galena. **Gangue:** Quartz. **Deposit:** Ore occurs as a replacement of limestone along zones of fracturing and brecciation. **Dev:** 400-ft. adit on which are a shaft and a raise. **Ref:** 30, p. 34. 164, p. 147.**Regina (50)**

(see under copper)

Rightside (152)

(see under copper)

Rinchaw

(see Middleport under zinc)

Riverview (71)

(see under lead)

Robena

(see Young America under zinc)

Rockcut (15)

(see under lead)

Rocky Creek

(see Burrus under zinc)

- Rocky Lake (161)**
(see under molybdenum)
- Roosevelt (Lakeview) (104)**
Loc: Sec. 7, (40-42E), Northport dist. **Access:** 2 mi. from road. **Prop:** 4 unpatented claims. **Owner:** John Citkovitch, Colville, Wash. (1941). **Ore:** Silver, lead, zinc, gold. **Deposit:** Vein about 4 in. wide. **Dev:** 800-ft. adit, 400-ft. adit. **Prod:** 1937. **Ref:** 30, p. 109. 58, p. 59. 63, p. 111. 97, 1938, p. 460.
- Rosebud (163)**
(see under lead)
- Royal**
(see Big Chief under lead)
- Royal Gold**
(see Hubbard under lead)
- St. Crispin (69)**
(see under gold)
- St. Paul-Express**
(see under copper)
- Sandiego (Good Enough) (224)**
Loc: Sec. 18, (30-37E), Cedar Canyon dist. **Access:** Road. **Prop:** 40 acres of deeded land. **Owner:** Henry Troger (1941). **Ore:** Said to be silver and lead. **Dev:** 500 ft. of adit and shaft work, caved (1941). **Ref:** 30, p. 76.
- Santa Rita**
(see Cleveland under lead)
- Saratoga**
(see under gold)
- Saturday Night-Sunday Morning (242)**
(see under lead)
- Scandia (78)**
(see under zinc)
- Schenk**
(see Rightside under copper)
- Scott (137)**
(see under gold)
- Seal**
(see Queen)
- Second Thought (28)**
(see under gold)
- Security Copper (193)**
(see under copper)
- Shoemaker (143)**
(see under zinc)
- Short Wait (62)**
(see under lead)
- Sierra Zinc (132)**
(see under zinc)
- Silent Bell**
(see Pop under copper)
- Silver Basin**
(see Queen)
- Silver Crest**
Loc: Northport dist. **Owner:** Silver Crest Mining & Milling Co. (1924-1926). **Ore:** Silver, lead, cobalt. **Ref:** 98, 1925, p. 1832; 1926, p. 1594.
- Silver Crown (75)**
(see under lead)
- Silver Horde**
Loc: Cedar Canyon dist. **Owner:** Silver Horde Mining Co. (1918). **Ore:** Silver. **Ref:** 112, p. 202.
- Silver Key**
(see Big Chief under lead)
- Silver King**
(see under lead)
- Silver Mountain**
(see Daisy-Tempest)
- Silver Queen**
(see Queen)
- Silver Queen (Ark)**
(see Ark)
- Silver Seal**
(see Queen)
- Silver Summit (172)**
(see under lead)
- Silver Trail (115)**
(see under lead)
- Silver Wave**
(see under lead)
- Smoky Bullion**
(see A and C under copper)
- Snowstorm**
Loc: Cedar Canyon dist. **Owner:** Silver Basin Mining Co. (1918-1924). **Ore:** Silver. **Ref:** 98, 1925, p. 1831.
- Snyder and Baxter**
Loc: Springdale dist. **Ore:** Silver, lead, copper. **Prod:** 1908. **Ref:** 97, 1908, p. 581.
- Squire**
(see under lead)
- Star**
(see Just Time under lead)
- Steel Galena**
(see Ham under lead)
- Stemwinder (19)**
(see under copper)
- Sterrett (73)**
(see under lead)
- Stockwell**
(see Columbia Tungsten under tungsten)
- Stonewall-Sunnyside (77)**
(see under lead)
- W. B. Stuart**
(see John Day)
- Sugar Loaf**
(see Vanasse)
- Summit**
(see Silver Summit under lead)
- Sunday (151)**
(see under gold)
- Sunday Morning**
(see Saturday Night-Sunday Morning under lead)
- Sunday Morning Star**
(see Sunday under gold)
- Sunnyside**
(see under gold)

Sunnyside (Stonewall-Sunnyside)
(see Stonewall-Sunnyside under lead)

Sunset (72)
(see under lead)

Superior Copper (214)
(see under copper)

Surprise
(see Uncle Sam under lead)

Swamp King (9)
(see under gold)

Syndicate
(see under copper)

Tempest (168)
(see also Daisy-Tempest)

Loc: Sec. 7, (33-38E), Kettle Falls dist. **Prop:** 6 claims: Tempest, Master, Crown Point, Great Eastern, Eureka, Wild Rose. **Owner:** Consolidated Silver Mountain Mines Co., Ltd. (1932-1933). Tempest Mining & Milling Co. (1915-1924). Tempest Consolidated Mines Co. (1924-1926). **Ore:** Silver, gold, copper, zinc. **Ore min:** Sphalerite, chalcopryrite, pyrite. **Gangue:** Quartz. **Deposit:** 2 sparsely mineralized veins 4 and 12 ft. wide in quartzite, argillite, and diorite. **Prod:** Has produced. **Ref:** 73, p. 126. 98, 1922, p. 1667; 1925, p. 1835; 1926, p. 1597. 104, 6/30/33, p. 18; 7/30/33, p. 19. 106, 11/17/32. 129, pp. 140-143. 164, pp. 229-231.

Tenderfoot (Avondale-Dome)
(see Avondale-Dome under lead)

Tenderfoot (Big Chief)
(see Big Chief under lead)

Thomason Queen (180)
(see under copper)

Three Orphans (17)
(see under lead)

Titanic (24)
(see under gold)

Togo (228)
(see under copper)

Tom Moore (11)
(see under lead)

Treadwell
(see Iron Mask under zinc)

Trojan (31)
(see under gold)

Tungsten King (211)
(see under tungsten)

Turk (229)
(see under copper)

Twin Cabins
(see Hope and Twin Cabins under copper)

U. S. Copper Gold (M. and C.) (200)

Loc: SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, (32-41E). **Elev:** 2,550 to 2,650 ft. **Access:** 4 mi. by road E. of Chewelah. **Prop:** 2 claims: Expert, Grace. **Owner:** Elmer Mullen, Chewelah, Wash. (1951). Copper-Gold Mining Co. (1907-1920). **Ore:** Silver, copper, gold. **Ore min:** Chalcopryrite, pyrite, malachite, azurite, limonite. **Deposit:** 4-ft. quartz vein cutting metamorphics. **Dev:** 340-ft. adit, a shorter adit. **Assays:** Carload of ore shipped in 1917 reported to assay 4% Cu, 20 oz. Ag, \$2.50 Au. **Prod:** One car in 1917. **Ref:** 7, p. 107. 30, pp. 37-38. 33, 1907, p. 517. 68, p. 17. 163, p. 161.

Uncle Sam (38)
(see under copper)

Uncle Sam (Hi Cliff) (119)
(see under lead)

United Copper (188)
(see under copper)

United Silver Copper
(see United Copper under copper)

United Treasure (107)

Loc: Near center sec. 11, (40-42E), on E. side of Fish Cr., 1 mi. W. of Frisco Standard property, Russian Cr. area. **Elev:** 3,450 ft. **Access:** 11 mi. E. of railroad at Boundary, by Cedar Cr. road. **Prop:** 4 unpatented claims. **Owner:** Singlejack Silver Mining Exploration Co., Wm. and Richard Weaver, Spokane, Wash. (1953—). R. O. Reinertson, Seattle, Wash. (1933-1953). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Tetrahedrite, galena, sphalerite, azurite, malachite, pyrite. **Gangue:** Quartz, carbonates. **Deposit:** Irregular vein zone of quartz having a max. width of 4 ft. cuts slates. Thin lamprophyre dike above the vein zone. **Dev:** 1,000 ft. of shallow adits and cuts and one 800-ft. adit. **Assays:** Best values in silver. 2 tons of hand-sorted ore av. 117 oz. Ag per ton. **Prod:** 62 tons in 1917. 2 tons in 1933. 1953. **Ref:** 30, p. 114. 73, pp. 104-105. 97, 1917, 1918, 1926, 1934. 104, 11/30/32, p. 24. 106, 11/17/32, p. 9. 128, pp. 60-61. 129, pp. 114-116. 158. 164, pp. 303-304.

Valley Dew
(see Titanic under gold)

Valley View (169)

Loc: Sec. 7, (33-38E), 4 mi. E. of Daisy. **Ore:** Silver. **Ref:** 158.

Van Stone (131)
(see under zinc)

Vanasse (Sugar Loaf, Victory) (146)

Loc: S $\frac{1}{2}$ NE $\frac{1}{4}$ sec. 10, (36-38E), Kettle Falls dist. **Access:** 1.3 mi. from U. S. Highway 395 on the Mission road. **Prop:** 240-acre State lease. **Owner:** Luther Vanasse, Colville, Wash. (1951—). **Ore:** Silver, gold, lead, copper, antimony. **Ore min:** Chalcopryrite, tetrahedrite, galena, sphalerite, stibnite, bornite, pyrite. **Deposit:** Mineralized quartz veins in arkose and quartzite. Veins from 1 to 6 ft. wide. In general, zinc, lead, and copper minerals predominate. **Dev:** 9 shafts 7 to 20 ft. deep and one 65 ft. deep. Also some bulldozer trenches. Diamond drilling. **Assays:** Assays on picked samples as high as 14% Pb, 6% Cu, \$4.00 Au, 140 oz. Ag. One 16-in. vein shows about 4% stibnite. **Ref:** 30, p. 57. 132, p. 145. 133, p. 41.

Venus
(see Deer Trail)

Victory
(see Vanasse)

Viking (21)
(see under copper)

Vulcan (217)
(see under copper)

Wahkiagin (170)

Loc: Sec. 7, (33-38E), Summit dist. **Owner:** Silver Mountain Mining Co. (1918-1924). **Ore:** Silver. **Ref:** 112, p. 203.

War Eagle (45)
(see under gold)

Washington
(see Montana and Washington under copper)

Wellington

(see under lead)

Wells Fargo (220)

(see under antimony)

Western Molybdenum

(see Juno-Echo under copper)

White Elephant (5)

(see under gold)

White Horse (59)

(see under copper)

Wilkie Lode (183)

(see under lead)

Windfall (208)

(see under copper)

Winslow (182)

(see under lead)

Woohaa

(see Bechtol under lead)

Young America (111)

(see under zinc)

WHATCOM COUNTY**Allen Basin (16)**

(see under gold)

Anacortes (12)

(see under gold)

Azurite (27)

(see under gold)

B. C. & M. (26)

(see under gold)

Beck and Short Grub (17)

(see under gold)

Bismarck (21)

(see under gold)

Bonita

(see New Light under gold)

Boundary Gold

(see Lone Jack under gold)

Brooks-Willis

(see Lone Jack under gold)

Chain Lakes (4)

(see under zinc)

Chancellor (14)

(see under gold)

Crown Point (13)

(see under gold)

Eureka

(see New Light under gold)

Evergreen (7)

(see under gold)

Galena

(see Veronia under gold)

Gargett (6)

(see under gold)

Glacier

(see Midas under copper)

Gold Hill (Northern Cascade, Peterson) (28)

Loc: SW cor. sec. 30, (37-17E), on tributary of Granite Cr., Slate Cr. dist. **Elev:** 4,600 to 5,000 ft. **Access:** 10 mi. from Chancellor on Boulder Cr. trail. **Prop:** 32 unpatented claims and 2 millsites. **Owner:** Northern Cascade Mines, Inc., Wenatchee, Wash. (1940—). Gold Hill Mining Co. (1930-1939). Gold Hill Operating Co. (1935-1936). **Ore:** Silver, gold, lead, zinc, copper, antimony. **Ore min:** Pyrrhotite, sphalerite, galena, pyrite, reportedly argentite. **Deposit:** Shear zones 2 to 8 ft. wide in black argillite are mineralized in places. **Dev:** 4 adits total about 4,000 ft. Also several open cuts and a 20-ft. shaft. **Assays:** High Au, Ag, Pb, Zn assays have been reported, but nothing in the 2 lower adits was seen to support the reports. **Ref:** 46, pp. 232-233. 68, p. 14. 99, 1/29/35. 104, 6/15/32, p. 27; 8/15/35, p. 26; 9/30/35, p. 24; 10/30/35, p. 24; 2/29/36, p. 28; 12/30/36, p. 29. 106, 12/18/30, 9/1/32. 108, 9/40, p. 42. 152. 158.

Gold Run

(see under gold)

Golden Arrow

(see Tacoma under gold)

Great Excelsior (3)

(see under gold)

Indiana

(see Chancellor under gold)

Lambert

(see Lone Jack under gold)

Lestrud

(see Tooker-Lestrud)

Lincoln

(see Great Excelsior under gold)

Lone Jack (8)

(see under gold)

Mammoth (18)

(see under gold)

Midas (1)

(see under copper)

Monica

(see New Light under gold)

Morley B. (25)

(see under gold)

Morovitz

(see under gold)

Mount Baker

(see Lone Jack under gold)

New Light (19)

(see under gold)

Ninety-nine (15)

(see under gold)

North American (20)

(see under gold)

Northern Cascade

(see Gold Hill)

Peterson

(see Gold Hill)

Post-Lambert

(see Lone Jack under gold)

President

(see Great Excelsior under gold)

Rockefeller

(see under gold)

Saginaw (9)

(see under gold)

Shanghai (22)

(see under gold)

Short Grub

(see Beck and Short Grub under gold)

Silver Creek (11)

(see under molybdenum)

Silver Tip (10)

(see under copper)

Slate Creek

(see New Light under gold)

Tooker-Lestrud (2)

Loc: SE¼ sec. 31, (40-8E), Mt. Baker dist. **Access:** On Mt. Baker highway about 1 mi. E. of the Excelsior power house. **Prop:** 9 claims: Waldo Nos. 1 and 2, Partridge, Victory, Liberty Bell, Elnine, Robert Lee, Pay Day, Lucky Adrians. **Owner:** Vernon Lestrud and Ray Tooker, Bellingham, Wash. (1944). **Ore:** Silver. **Ore min:** Pyrite, marcasite. **Deposit:** A zone of oxidized pyrite 10 to 25 ft. or more wide. The pyrite zone is in schistose volcanic rocks and sediments. **Assays:** Spectrographic analysis showed 2.9 oz. Ag. **Ref:** 158.

Tyler

(see Veradell under gold)

Velvet

(see North American under gold)

Veradell (24)

(see under gold)

Verona (5)

(see under gold)

Whistler (23)

(see under gold)

White Swan

(see under gold)

Willis

(see Lone Jack under gold)

Yellow Aster

(see under nickel)

YAKIMA COUNTY**Bear Gap**

(see Fife under gold)

Blue Bell

(see Fife under gold)

Chinook (8)

(see under copper)

Comstock (1)

(see under gold)

Copper Mining Co. (11)

(see under copper)

Crown Point

(see under gold)

Damfino (2)

(see under gold)

Dry Spring (3)

(see under gold)

Elizabeth Gold Hill (7)

(see under gold)

Eva

(see under gold)

Fife (4)

(see under gold)

Gold Hill (5)

(see under gold)

Highland (9)

(see under gold)

Lolette (6)

(see under gold)

Manitau

(see Fife under gold)

New Find (12)

(see under copper)

Pickhandle

(see Fife under gold)

Richmond (10)

(see under lead)

SODIUM

Properties—Sodium is a silver-white metal which is lustrous when freshly cut but rapidly darkens in air. It is lighter in weight than water, ductile, malleable, and at room temperatures is nearly as soft as wax but is fairly hard and brittle at -20° C. The metal is a good conductor of heat and electricity, being exceeded in these properties only by silver, copper, gold, and possibly potassium. Weight for weight, it is three times as conductive as copper. Sodium is univalent, and its chemical properties are similar to those of potassium. Except for the silicates, almost all sodium salts are soluble in water. The metal is very reactive, oxidizing rapidly in air, and decomposing water with explosive violence; thus it must be kept in an oxygen-free environment, usually in kerosene. Other properties are shown in the table on page 12.

Uses—The softness and chemical activity of sodium make it unlikely that the metal will have much value

for the structural and mechanical uses characteristic of ordinary metals; however, the metal does have some important chemical uses. Formerly it was used as a reducing agent in producing aluminum and magnesium, and it has been considered for use in producing titanium. It now has important use as a reducing agent in making tetraethyl lead, vat-dye indigo, and in other organic syntheses. The metal has minor uses in sodium-vapor lamps, as a scavenger, to desulfurize petroleum, to dehydrate ether, and as an amalgam with mercury in platinum mining to recover platinum, which does not amalgamate with mercury alone. The metal has a low melting point, and the liquid can be used as a heat-transfer medium in power plants. Very minor use has been made of sodium alloys, but sodium salts have a great many very important industrial uses.